CAB89082.1 AJ277534 Asparagus officinalis
S6 ribosomal protein kinase. pk1. putative.
AAB93862.1 U89681 Lycopersicon esculentum
protein kinase. LePK4. contains catalytic domain.
BAA92972.1 AP001551 Oryza sativa
ESTs AU056183(S20356), AU056881(S20950) correspond to a region of the predicted gene.
Similar to Arabidopsis thaliana chromosome 4 BAC clone F6I18; putative protein kinase.
(AL022198).
BAB12687.1 AP002746 Oryza sativa
putative protein kinase. P0671B11.2. contains ESTs C22394(C30013),C22393(C30013).
SEQ ID NO: 508
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.

BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
AAB93834.1 U82481 Zea mays
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
AAD52097.1 AF088885 Nicotiana tabacum
receptor-like kinase CHRK1. Chrk1.
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAK02023.1 AC074283 Oryza sativa
Putative protein kinase-like. OSJNBa0087H07.5.
CAA79324.1 Z18884 Brassica oleracea
S-receptor kinase related protein.
BAB21240.1 AP002953 Oryza sativa
Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461),C22360(C11461).
CAB51836.1 AJ243961 Oryza sativa
Putitive Ser/Thr protein kinase. 11332.7.
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808),AU056702(S20808).
BAA94509.1 AB041503 Populus nigra
protein kinase 1. PnPK1.
AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.
BAA94510.1 AB041504 Populus nigra
protein kinase 2. PnPK2.
BAA92953.1 AP001551 Oryza sativa
Similar to Arabidopsis thaliana chromosome 4 BAC clone F10M6; S-receptor kinase -like protein. (AL021811).

BAA92954.1 AP001551 Oryza sativa
Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821).
AAG16628.1 AY007545 Brassica napus
protein serine/threonine kinase BNK1.
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192).
SEQ ID NO: 510
AAG30254.1 AF307333 Hordeum vulgare
putative nematode-resistance protein. Hsl. similar to Beta procumbens Hslpro protein.
AAB48305.1 U79733 Beta procumbens
nematode resistance. Hs1pro-1.
SEQ ID NO: 513
BAA14144.1 D90116 Armoracia rusticana
peroxidase isozyme.
BAA14143.1 D90115 Armoracia rusticana
peroxidase isozyme.
BAA11853.1 D83225 Populus nigra
peroxidase.
CAA66037.1 X97351 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
CAA66034.1 X97348 Populus balsamifera subsp. trichocarpa
signal for ER, peroxidase.
CAA66036.1 X97350 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
CAA66035.1 X97349 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAA11852.1 D83224 Populus nigra
peroxidase.
BAA07241.1 D38051 Populus kitakamiensis
peroxidase. prxA4a.
BAA06335.1 D30653 Populus kitakamiensis
peroxidase.
AAB47602.1 L07554 Linum usitatissimum
peroxidase. FLXPER1.
AAC98519.1 AF007211 Glycine max
peroxidase precursor. GMIPER1. pathogen-induced.
AAD37427.1 AF149277 Phaseolus vulgaris
peroxidase 1 precursor, FBP1. secretory peroxidase.
BAA06334.1 D30652 Populus kitakamiensis
peroxidase.
AAB97734.1 AF014502 Glycine max
seed coat peroxidase precursor. Ep. H2O2 oxidoreductase; class III plant peroxidase.

CAD04602.1 A 1040740 Transca hatatas
CAB94692.1 AJ242742 Ipomoea batatas
Removal of H2O2, oxidation of toxic reductants, defence response toward wounding. peroxidase. pod.
CAA62227.1 X90694 Medicago sativa
peroxidase1C. prx1C.
CAA62226.1 X90693 Medicago sativa
peroxidase1B. prx1B.
AAD37430.1 AF149280 Phaseolus vulgaris
peroxidase 5 precursor. FBP5. secretory peroxidase.
CAA62225.1 X90692 Medicago sativa
peroxidase1A. prx1A.
AAB41811.1 L36157 Medicago sativa
peroxidase. pxdC. amino acid feature: conserved domains, aa 123 129, 191 198; amino
acid feature: heme-binding domain, aa 68 73.
AAB41810.1 L36156 Medicago sativa
peroxidase. pxdA. amino acid feature: conserved motifs, aa 181 188; amino acid feature:
heme-binding domain, aa 60 65.
BAA01877.1 D11102 Populus kitakamiensis
peroxidase. prxA1.
CAB67121.1 Y19023 Lycopersicon esculentum
peroxidase. cevi-1.
CAA50597.1 X71593 Lycopersicon esculentum
peroxidase. CEVI-1.
BAA01992.1 D11396 Nicotiana tabacum
'peroxidase'.
AAA34108.1 J02979 Nicotiana tabacum
lignin-forming peroxidase precursor (EC 1.11.1.7).
AAA33127.1 M91373 Cucumis sativus
peroxidase. pre-peroxidase. putative.
BAA92500.1 AP001383 Oryza sativa
ESTs D39300(R3292), AU030751(E60187) correspond to a region of the predicted gene.
Similar to peroxidase ATP6a. (X98774).
CAB65334.1 AJ250121 Picea abies
peroxidase. SPI2 protein. spi2.
CAA40796.1 X57564 Armoracia rusticana
peroxidase. peroxidase precursor.
AAB06183.1 M37636 Arachis hypogaea
cationic peroxidase. PNC1.
CAA76680.1 Y17192 Cucurbita pepo
peroxidase. aprx. type III peroxidase.
AAA33129.1 M91372 Cucumis sativus
peroxidase. pre-peroxidase.
A

CAA71492.1 Y10466 Spinacia oleracea
peroxidase. prxr5.
AAF63027.1 AF244924 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx15 precursor. type III peroxidase.
AAD43561.1 AF155124 Gossypium hirsutum
bacterial-induced peroxidase precursor, Perx_Goshiko.
AAF63026.1 AF244923 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx14 precursor. type III peroxidase.
AAA33121.1 M32742 Cucumis sativus
peroxidase (CuPer2).
BAA92422.1 AP001366 Oryza sativa
ESTs AU081576(R0541), AU032412(R4029) correspond to a region of the predicted gene.
Similar to A.thaliana mRNA for peroxidase ATP18a. (X98804).
BAA92497.1 AP001383 Oryza sativa
ESTs AU081576(R0541), AU032412(R4029) correspond to a region of the predicted gene.
Similar to peroxidase ATP18a. (X98804).
BAA77389.1 AB024439 Scutellaria baicalensis
peroxidase 3.
BAA08499.1 D49551 Oryza sativa
peroxidase. poxN.
AAB19129.1 U41657 Glycine max
seed coat peroxidase isozyme. SPOD4.1. H2O2 oxidoreductase.
BAA03373.1 D14482 Oryza sativa
putative peroxidase.
AAB02554.1 L37790 Stylosanthes humilis
cationic peroxidase.
SEQ ID NO: 515
AAB88134.1 AF034618 Spinacia oleracea
cytosolic heat shock 70 protein. HSC70-1.
AAF34134.1 AF161180 Malus x domestica
high molecular weight heat shock protein. Hsp2.
AAB99745.1 AF005993 Triticum aestivum
HSP70. TaHSP70d. 70 kDa heat shock protein, molecular chaperone.
AAA62325.1 L32165 Hordeum vulgare
Molecular chaperone. HSP70. Heat-shock protein HSP70; The predicted amino acid sequence
is highly homologous (more than 80% identity) to other plant heat-shock proteins (HSP70s) in
the database; however the C terminus is quite unique.; putative.
AAA21808.1 L23551 Spinacia oleracea
molecular chaperone. ER-lumenal protein. HSC70.
AAA34139.1 L08830 Lycopersicon esculentum
molecular chaperon (precursor). glucose-regulated protein 78. BiP/grp78. an endoplasmic
reticulum residing heat shock protein 70 family member; precursor peptide.

AAB86942.1 AF031241 Glycine max
endoplasmic reticulum transport protein; molecular chaperone; roles in protein folding,
assembly, and transport. endoplasmic reticulum HSC70-cognate binding protein precursor.
BIP. BiP; similar to HSC70 and GRP78.
AAK21920.1 AF338252 Glycine max
molecular chaperone. BiP-isoform D. BiPD. ER-lumenal HSP70; binding protein GRP78.
AAB91473.1 AF035458 Spinacia oleracea
heat shock 70 protein. HSC70-11. mitochondrial protein.
AAB96660.1 AF039084 Spinacia oleracea
heat shock 70 protein. HSC70-11. molecular chaperone.
AAB91472.1 AF035457 Spinacia oleracea
heat shock 70 protein. HSC70-10. mitochondrial protein.
SEQ ID NO: 516
CAA06927.1 AJ006233 Nicotiana tabacum
putative thaumatin-like protein precursor.
AAF06346.1 AF195653 Vitis vinifera
SCUTL1. thaumatin-like protein.
BAA28872.1 AB006009 Pyrus pyrifolia
thaumatin-like protein precursor. PsTL1.
CAC10270.1 AJ243427 Malus x domestica
thaumatin-like protein. tl. allergen, pathogenesis-related.
AAC36740.1 AF090143 Malus x domestica
thaumatin-like protein precursor Mdtl1. MDTL1. pathogenesis-related.
CAB62167.1 AJ242828 Castanea sativa
antifungal, thaumatin-like protein. tl1.
AAB38064.1 U32440 Prunus avium
thaumatin-like protein precursor.
BAA74546.2 AB000834 Nicotiana tabacum
thaumatin-like protein SE39b.
AAF06347.1 AF195654 Vitis vinifera
SCUTL2. thaumatin-like protein.
CAC09477.1 AL442113 Oryza sativa
thaumatin-like protein. H0806H05.10.
AAB95118.1 U71244 Brassica rapa
pathogenesis-related group 5 protein. BFTP. thaumatin-like protein; PR-5.
CAA10492.1 AJ131731 Pseudotsuga menziesii
Thaumatin-like protein. 5A1A.16.
BAA95017.1 AB031870 Cestrum elegans
thaumatin-like protein. CETLP.
BAA95165.1 AB029918 Nicotiana tabacum
pistil transmitting tissue specific thaumatin (SE39b)-like protein. SE39b.
AAB61590.1 AF003007 Vitis vinifera
VVTL1. osmotin-like protein, PR-5 protein; thaumatin-like protein.

AAD55090.1 AF178653 Vitis riparia
thaumatin. osmotin; pathogenesis-related protein.
CAB85637.1 AJ237999 Vitis vinifera
putative thaumatin-like protein. Tl1. alternative name grip 51.
AAF82264.1 AF227324 Vitis vinifera
thaumatin-like protein.
AAB02259.1 U57787 Avena sativa
permatin precursor, thaumatin-like protein.
AAB53368.1 U77657 Oryza sativa
pathogenesis-related thaumatin-like protein.
CAA09228.1 AJ010501 Cicer arietinum
thaumatin-like protein PR-5b.
CAA33293.1 X15224 Nicotiana tabacum
thaumatin-like protein. E22.
CAA33292.1 X15223 Nicotiana tabacum
thaumatin-like protein. E2.
SEQ ID NO: 517
CAA71801.1 Y10848 Brassica juncea
gamma-glutamylcysteine synthetase. gsh1.
AAB71230.1 AF017983 Lycopersicon esculentum
gamma-glutamylcysteine synthetase. GSH1.
AAC82334.1 AF041340 Medicago truncatula
gamma-glutamylcysteine synthetase. putative plastid protein.
AAF22137.1 AF128455 Pisum sativum
gamma-glutamylcysteine synthetase precursor. gsh1. putative plastid protein.
AAF22136.1 AF128454 Phaseolus vulgaris
gamma-glutamylcysteine synthetase precursor. gsh1. putative plastid protein.
CAA06613.1 AJ005587 Brassica juncea
gamma-glutamylcysteine synthetase.
AAG13459.1 AF128453 Glycine max
gamma-glutamylcysteine synthetase precursor. gshl.
CAA64808.1 X95563 Brassica juncea
gamma-glutamylcysteine synthetase. gshl.
SEQ ID NO: 518
AAA75414.1 L28005 Glycine max
TGACG-motif-binding protein. STGA1.
AAB31250.2 S73827 Solanum tuberosum
mas-binding factor MBF3. transcription factor TGA1a homolog; This sequence comes from
Fig. 4.
AAB31249.1 S73826 Solanum tuberosum
mas-binding factor MBF2. mas-binding factor MBF2. transcription factor TGA1a homolog;
This sequence comes from Fig. 4.

CAA34468.1 X16449 Nicotiana sp.
TGA1a protein (AA 1-359).
AAA34091.1 M62855 Nicotiana tabacum
ASF-1/G13. leucine-zipper DNA-binding protein.
AAB31251.2 S73828 Solanum tuberosum
mas-binding factor MBF1. transcription factor TGA1a homolog; This sequence comes from Fig. 4.
CAA48904.1 X69152 Zea mays
ocs-element binding factor 3.2. OBF3.2.
CAA48905.1 X69153 Zea mays
ocs-element binding factor 3.1. OBF3.1.
AAC24123.1 AF067187 Cichorium intybus
cAMP responsive element binding protein. bZIP transcription factor; CREB.
AAC24122.1 AF067186 Cichorium intybus
cAMP responsive element binding protein. CREB1.
AAC49760.1 AF001454 Helianthus annuus
Dc3 promoter-binding factor-2. DPBF-2.
SEQ ID NO: 521
CAA10608.1 AJ132228 Ricinus communis
amino acid carrier. aap3.
CAA07563.1 AJ007574 Ricinus communis
amino acid carrier. aap1.
CAA70778.1 Y09591 Vicia faba
amino acid transporter.
AAD16014.1 AF080543 Nepenthes alata
amino acid transporter. AAP2.
CAA70969.1 Y09826 Solanum tuberosum
amino acid transporter. AAP2. transmembrane protein.
AAD16015.1 AF080544 Nepenthes alata
amino acid transporter. AAP3.
CAA70968.1 Y09825 Solanum tuberosum
amino acid transporter. AAP1. transmembrane protein.
CAA92992.1 Z68759 Ricinus communis
amino acid carrier.
AAD16013.1 AF080542 Nepenthes alata
amino acid transporter. AAP1.
AAF15945.1 AF061435 Vicia faba
amino acid transporter b. AAPB.
CAA72006.1 Y11121 Ricinus communis
amino acid carrier.
AAF15944.1 AF061434 Vicia faba
amino acid transporter a. AAPA.

AAF15946.1 AF061436 Vicia faba
amino acid transporter c. AAPC.
AAB48944.1 U31932 Nicotiana sylvestris
amino acid permease 1. NSAAP1. amino acid transporter; Method: conceptual translation
supplied by author.
AAB96830.1 U64823 Nicotiana sylvestris
amino acid transporter. amino acid permease. nsaap1.
BAA93437.1 AB022783 Oryza sativa
amino acid permease. OsproT.
AAD25162.1 AF014810 Lycopersicon esculentum
proline transporter 3. LeProT3.
AAD25161.1 AF014809 Lycopersicon esculentum
proline transporter 2. LeProT2.
AAD25160.1 AF014808 Lycopersicon esculentum
proline transporter 1. LeProT1.
AAF76897.1 AF274032 Atriplex hortensis
proline/glycine betaine transporter.
CAB42599.1 AJ238635 Chlorella protothecoides
amino acid carrier. dee4.
SEQ ID NO: 526
BAA03763.1 D16247 Nicotiana sylvestris
RNA helicase like protein DB10.
AAD46404.1 AF096248 Lycopersicon esculentum
ethylene-responsive RNA helicase. ER68. putative DEAD box/RNA helicase.
AAF75791.1 AF271892 Pisum sativum
DEAD box protein P68. P68. RNA helicase.
AAF40306.1 AF156667 Vigna radiata
RNA helicase. VRH1.
CAA68193.1 X99937 Spinacia oleracea
RNA helicase. prh75. DEAD-box protein; homologous to X99938.
AAG13612.1 AC078840 Oryza sativa
putative RNA helicase. OSJNBb0073N24.12.
AAG34876.1 AF261021 Nicotiana tabacum
putative chloroplast RNA helicase VDL isoform 1. VDL. alternatively spliced.
AAG34873.1 AF261020 Nicotiana tabacum
putative chloroplast RNA helicase VDL isoform 1. VDL, essential for chloroplast
development; may be involved in post-transcriptional regulation.
AAG34879.1 AF261024 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 1. VDL'. alternatively spliced.
AAD20980.1 AF079782 Zea mays
ATPase and RNA helicase, translation initiation factor 4A2, tif4A2.
AAG34882.1 AF261027 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 4. VDL'. alternatively spliced.
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BAA95705.1 AB042644 Oryza sativa
DEAD box RNA helicase OsPL10b. OsPL10b.
BAA95704.1 AB042643 Oryza sativa
DEAD box RNA helicase OsPL10a. OsPL10a.
AAG34883.1 AF261028 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 5. VDL'. alternatively spliced.
AAG38493.1 AF261032 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 1. VDL'. alternatively spliced.
AAG34884.1 AF261029 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 6. VDL'. alternatively spliced.
AAG38496.1 AF261032 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 4. VDL'. alternatively spliced.
AAG38497.1 AF261032 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 5. VDL'. alternatively spliced.
AAG38498.1 AF261032 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 6. VDL'. alternatively spliced.
AAG38500.1 AF261032 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 8. VDL'. alternatively spliced.
AAG34886.1 AF261031 Nicotiana tabacum
putative chloroplast RNA helicase VDL' isoform 8. VDL'. alternatively spliced.
AAG48833.1 AC084218 Oryza sativa
similar to Arabidopsis thaliana DNA helicase (AJ404475).
SEQ ID NO: 528
CAA65536.1 X96761 Sporobolus stapfianus
sulphate transporter protein.
AAK27688.1 AF347614 Lycopersicon esculentum
sulfate transporter 2. ST2.
AAK27687.1 AF347613 Lycopersicon esculentum
sulfate transporter 1. ST1.
CAA57711.1 X82256 Stylosanthes hamata
high affinity sulphate transporter. SHST2.
AAG41419.1 AF309643 Solanum tuberosum
high affinity sulfate transporter type 1. ST1.
CAA57710.1 X82255 Stylosanthes hamata
high affinity sulphate transporter. SHST1.
AAK35215.1 AF355602 Zea mays
sulfate transporter ST1.
CAA65291.1 X96431 Hordeum vulgare
high affinity sulphate transporter. HVST1.
AAA97952.1 U52867 Hordeum vulgare
high affinity sulfate transporter HVST1.

CAB42985.1 AJ238244 Aegilops tauschii putative plasma membrane sulfate transport, putative high affinity sulfate transporter, stl. CAB42986.1 AJ238245 Aegilops tauschii putative plasma membrane sulfate transport, putative high affinity sulfate transporter, st2. CAA57831.1 X82454 Stylosanthes hamata low affinity sulphate transporter. SHST3. **SEQ ID NO: 531** AAK00436.1 AC060755 Oryza sativa putative zinc finger protein. OSJNBa0003O19.23. BAA85438.1 AP000616 Oryza sativa similar to RING-H2 finger protein RHA1a (AF078683). AAG43550.1 AF211532 Nicotiana tabacum Avr9/Cf-9 rapidly elicited protein 132. ACRE132. similar to RING finger proteins. BAA90357.1 AP001080 Oryza sativa EST AU070319(S10788) corresponds to a region of the predicted gene. Similar to RING-H2 finger protein RHA2b (AC006200) **SEQ ID NO: 532** BAA81751.1 AB017517 Marchantia polymorpha calcium-dependent protein kinase. CDPK1. CDPK-B; alternative splicing. BAA13232.1 D87042 Zea mays Calcium-dependent protein kinase. Marchantia polymorpha BAA81749.1 AB017515 calcium-dependent protein kinase. CDPK1. CDPK-B; alternative splicing. BAA81750.1 AB017516 Marchantia polymorpha calcium-dependent protein kinase. CDPK1. CDPK-A; alternative splicing. BAA85396.1 AP000615 Oryza sativa ESTs C22369(C12239), C22370(C12239), AU057852(S21844), AU057853(S21844) correspond to a region of the predicted gene.; similar to calcium dependent protein kinase. (AF048691). CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAB49984.1 U90262 Cucurbita pepo calcium-dependent calmodulin-independent protein kinase CDPK. cpCPK1. serine/threonine protein kinase that is activated by direct binding of calcium. AAB70706.1 U82087 Tortula ruralis calmodulin-like domain protein kinase. TrCPK1. Oryza sativa AAG46110.1 AC073166 calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.

BAA81748.1 AB017515 Marchantia polymorpha
calcium-dependent protein kinase. CDPK1. CDPK-A; alternative splicing.
CAA07481.1 AJ007366 Zea mays
calcium-dependent protein kinase.
AAB80692.1 U69173 Glycine max
calmodulin-like domain protein kinase isoenzyme beta. CDPK beta.
AAC49405.1 U08140 Vigna radiata
calcium dependent protein kinase. CDPK.
BAA12338.1 D84408 Zea mays
calcium dependent protein kinase. ZmCDPK1.
AAA33443.1 L15390 Zea mays
calcium-dependent protein kinase. CDPK.
CAA57157.1 X81394 Oryza sativa
calcium-dependent protein kinase. OSCPK2.
BAB21081.1 AP002819 Oryza sativa
putative calcium-dependent protein kinase. P0501G01.10.
BAA12715.1 D85039 Zea mays
calcium-dependent protein kinase.
CAA65500.1 X96723 Medicago sativa
protein kinase. CDPK.
AAC25423.1 AF072908 Nicotiana tabacum
calcium-dependent protein kinase. CDPK1.
AAA69507.1 U28376 Zea mays
calcium-dependent protein kinase. MZECDPK2.
BAA13440.1 D87707 Ipomoea batatas
calcium dependent protein kinase. CDPK.
AAD28192.2 AF115406 Solanum tuberosum
calcium-dependent protein kinase. CDPK; catalytic domain.
AAB80693.1 U69174 Glycine max
calmodulin-like domain protein kinase isoenzyme gamma. CDPK gamma.
AAA61682.1 L27484 Zea mays
calcium-dependent protein kinase. CDPK.
AAD17800.1 AF090835 Mesembryanthemum crystallinum
Ca2+-dependent protein kinase. CPK1. serine/threonine protein kinase.
CAA39936.1 X56599 Daucus carota
calcium- dependent protein kinase. DcPK431.
AAK26164.1 AY027885 Cucumis sativus
calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5.
AAB88537.1 AF035944 Fragaria x ananassa
calcium-dependent protein kinase. MAX17.
AAF21062.1 AF216527 Dunaliella tertiolecta
calcium-dependent protein kinase. CPK1; CDPK.

CAA89202.1 Z49233 Chlamydomonas eugametos
calcium-stimulated protein kinase.
AAC32116.1 AF051211 Picea mariana
probable calcium dependent protein kinase. Sb15. similar to Vigna radiata calcium dependent
protein kinase encoded by U08140.
AAF23900.1 AF194413 Oryza sativa
calcium-dependent protein kinase. CDPK1. OsCDPK1.
AAF23901.2 AF194414 Oryza sativa
calcium-dependent protein kinase. CDPK5. OsCDPK5.
CAB46228.1 Y18055 Arachis hypogaea
calcium dependent protein kinase. CDPK.
AAC78558.1 AF030879 Solanum tuberosum
protein kinase CPK1.
CAA58750.1 X83869 Daucus carota
CDPK-related protein kinase. CRK (or PK421).
AAB47181.1 S82324 Zea mays
/gene="calcium/calmodulin-dependent protein kinase. This sequence comes from Fig. 1.
BAA12691.1 D84507 Zea mays
CDPK-related protein kinase. Does not require calcium for its activity (by similarity).
BAA22410.1 D38452 Zea mays
calcium-dependent protein kinase-related kinase.
BAA12692.1 D84508 Zea mays
CDPK-related protein kinase. Does not require calcium for its activity.
AAG01179.1 AF289237 Zea mays
calcium/calmodulin dependent protein kinase MCK2. MCK2.
AAC24961.1 AF009337 Tradescantia virginiana
CDPK-related protein kinase. CRK1.
BAA90814.1 AP001168 Oryza sativa
ESTs AU030197(E50746),AU030196(E50746) correspond to a region of the predicted gene.;
Similar to calcium-dependent calmodulin-independent protein kinase CDPK (U90262).
AAC49008.1 U24188 Lilium longiflorum
calcium/calmodulin-dependent phosphorylation activity. calcium/calmodulin-dependent
protein kinase. CCaMK. serine/threonine kinase; binds to calcium and calmodulin.
AAF19402.1 AF203480 Lycopersicon esculentum
phosphoenolpyruvate carboxylase kinase. protein kinase; member of Ca2+/CaM kinase
family; lacks the autoinhibitory region and EF hands.
SEQ ID NO: 535
AAK19619.1 AF336286 Gossypium hirsutum
GHMYB9. ghmyb9. similar to myb.
CAA64614.1 X95296 Lycopersicon esculentum
transcription factor. THM27. myb-related.
CAA50224.1 X70879 Hordeum vulgare
MybHv1, myb1.

CA 4 50000 1 X700000 XX 1 1 1
CAA50222.1 X70877 Hordeum vulgare
MybHv1. myb1.
AAA33067.1 L04497 Gossypium hirsutum
MYB A; putative.
CAA50221.1 X70876 Hordeum vulgare
MybHv5. myb2.
BAA23337.1 D88617 Oryza sativa
transfactor. OSMYB1. Osmyb1.
BAA23338.1 D88618 Oryza sativa
transfactor. OSMYB2. Osmyb2.
AAC04720.1 AF034134 Gossypium hirsutum
putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-O.
similar to MYB A encoded by GenBank Accession Number L04497.
CAA72218.1 Y11415 Oryza sativa
myb.
CAA50225.1 X70880 Hordeum vulgare
MybHv5. myb2.
AAA82943.1 U39448 Picea mariana
MYB-like transcriptional factor MBF1. putative DNA binding region highly similar to the
maize C1.
CAA78386.1 Z13996 Petunia x hybrida
DNA binding protein; transcriptional activator. protein 1. myb.Ph3. Product related to animal
myb proto-oncoproteins. Sequence from nucleotide 992 is not included in clone cPF1 and has
been obtained by PCR amplification of cDNA.
BAA81732.1 AB029161 Glycine max
GmMYB29A2.
AAK19616.1 AF336283 Gossypium hirsutum
GHMYB25. ghmyb25. similar to myb; contains an unspliced intron.
AAK19611.1 AF336278 Gossypium hirsutum
BNLGHi233. bnlghi6233. similar to myb.
AAK19617.1 AF336284 Gossypium hirsutum
GHMYB36. ghmyb36. similar to myb.
BAA93038.1 AP001552 Oryza sativa
EST AU082058(C12976) corresponds to a region of the predicted gene. Similar to
Arabidopsis thaliana putative transcription factor (AF062916).
AAK19615.1 AF336282 Gossypium hirsutum
GHMYB10. ghmyb10. similar to myb.
BAB39987.1 AP003020 Oryza sativa
putative transcription factor (myb). P0498A12.16. contains ESTs
AU097474(S5087),D40175(S1959).
BAB39972.1 AP003018 Oryza sativa
putative transcription factor (myb). OSJNBa0004B13.27. contains ESTs
AU097474(S5087),D40175(S1959).
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CAB43399.1 AJ006292 Antirrhinum majus
Myb-related transcription factor mixta-like 1. mybml1.
CAA72185.1 Y11350 Oryza sativa
myb factor. myb.
AAF22256.1 AF161711 Pimpinella brachycarpa
myb-related transcription factor.
AAG13574.1 AC037425 Oryza sativa
myb factor. OSJNBa0055P24.4.
BAA81731.1 AB029160 Glycine max
GmMYB29A1.
BAA81730.1 AB029159 Glycine max
GmMYB29A1.
CAA72186.1 Y11351 Oryza sativa
myb factor. myb.
CAA67600.1 X99210 Lycopersicon esculentum
myb-related transcription factor. THM16.
CAA75509.1 Y15219 Oryza sativa subsp. indica
transcriptional activator. C1.
AAC04718.1 AF034132 Gossypium hirsutum
putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-J.
similar to MYB A encoded by GenBank Accession Number L04497.
CAA78387.1 Z13997 Petunia x hybrida
DNA-binding protein, transcriptional activator. protein 2. myb.Ph2. related to animal myb
proto-oncoproteins.
BAA81736.1 AB029165 Glycine max
GmMYB29B2.
AAK19618.1 AF336285 Gossypium hirsutum
GHMYB38. ghmyb38. similar to myb.
CAA72217.1 Y11414 Oryza sativa
myb.
AAC49394.1 U57002 Zea mays
P protein. P. allele P-wr; Myb-like transcriptional regulator with a putative zinc-finger at the
C-terminal.
AAA33500.1 M73028 Zea mays
myb-like transcription factor. P.
BAB20661.1 AP002871 Oryza sativa
putative myb-related protein P. P0475H04.31.
AAG36774.1 AF210616 Zea mays
P2 protein. P2. myb-like transcriptional factor; similar to Zea mays P gene.
BAA88222.1 AB028650 Nicotiana tabacum
myb-related transcription factor LBM2. lbm2.
BAA81733.2 AB029162 Glycine max
GmMYB29A2.

BAA23339.1 D88619 Oryza sativa
transfactor. OSMYB3. Osmyb3.
BAA88224.1 AB028652 Nicotiana tabacum
myb-related transcription factor LBM4. lbm4.
BAA88221.1 AB028649 Nicotiana tabacum
myb-related transcription factor LBM1. lbm1.
AAB41101.1 U72762 Nicotiana tabacum
transcription factor Myb1. myb1. TMV-inducible Myb homolog; contains helix-turn-helix
motif; contains redox-sensitive cysteine.
SEQ ID NO: 536
CAA70968.1 Y09825 Solanum tuberosum
amino acid transporter. AAP1, transmembrane protein.
AAF15946.1 AF061436 Vicia faba
amino acid transporter c. AAPC.
CAA70969.1 Y09826 Solanum tuberosum
amino acid transporter. AAP2. transmembrane protein.
AAB96830.1 U64823 Nicotiana sylvestris
amino acid transporter. amino acid permease. nsaap1.
CAA07563.1 AJ007574 Ricinus communis
amino acid carrier. aap1.
AAB48944.1 U31932 Nicotiana sylvestris
amino acid permease 1. NSAAP1. amino acid transporter; Method: conceptual translation
supplied by author.
AAD16015.1 AF080544 Nepenthes alata
amino acid transporter. AAP3.
CAA70778.1 Y09591 Vicia faba
amino acid transporter.
AAF15944.1 AF061434 Vicia faba
amino acid transporter a. AAPA.
AAF15945.1 AF061435 Vicia faba
amino acid transporter b. AAPB.
AAF76897.1 AF274032 Atriplex hortensis
proline/glycine betaine transporter.
AAD16014.1 AF080543 Nepenthes alata
amino acid transporter. AAP2.
AAD25161.1 AF014809 Lycopersicon esculentum
proline transporter 2. LeProT2.
CAA10608.1 AJ132228 Ricinus communis
amino acid carrier, aap3.
SEQ ID NO: 537
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.

BAA36423.1 AB013598 Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
BAB07962.1 AP002524 Oryza sativa
putative anthocyanin 5-O-glucosyltransferase. P0406H10.16. contains ESTs
AU067881(C10481),AU067882(C10481).
BAA36422.1 AB013597 Perilla frutescens
UDP-glucose: anthocyanin 5-O-glucosyltransferase homologue. PF3R6.
BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate
glucosyltransferase. SGT1. SGT.
AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
AAK16181.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.16.
AAG25643.1 AF303396 Phaseolus vulgaris
UDP-glucosyltransferase HRA25. putative; defense associated.
AAK16178.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.5.
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase. CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.
CAA54612.1 X77462 Manihot esculenta
UTP-glucose glucosyltransferase. CGT5.

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BAB41019.1 AB047092 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT1.
BAB41020.1 AB047093 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT2.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
BAB41025.1 AB047098 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT1.
BAB41023.1 AB047096 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT1.
BAB41022.1 AB047095 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT2.
BAB41021.1 AB047094 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT1.
BAA19659.1 AB002818 Perilla frutescens
flavonoid 3-O-glucosyltransferase. UDP glucose.
BAB41026.1 AB047099 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase, FIUFGT2.
BAB41024.1 AB047097 Vitis vinifera
UDP-glucose: flavonoid 3-O-glucosyltransferase. AlUFGT2.
AAK16180.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.21.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
BAB41017.1 AB047090 Vitis labrusca x Vitis vinifera
UDP-glucose: flavonoid 3-O-glucosyltransferase. KyUFGT1. The gene was derived from one
of the parents V. labruscana cv. Ishiharawase.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
CAA54614.1 X77464 Manihot esculenta
UTP-glucose glucosyltransferase. CGT7.
CAA54611.1 X77461 Manihot esculenta
UTP-glucose glucosyltransferase. CGT2.
CAA54613.1 X77463 Manihot esculenta
UTP-glucose glucosyltransferase. CGT6.
SEQ ID NO: 540
AAK27688.1 AF347614 Lycopersicon esculentum
sulfate transporter 2. ST2.

AAG41419.1 AF309643 Solanum tuberosum
high affinity sulfate transporter type 1. ST1.
AAK27687.1 AF347613 Lycopersicon esculentum
sulfate transporter 1. ST1.
AAA97952.1 U52867 Hordeum vulgare
high affinity sulfate transporter HVST1.
CAA57711.1 X82256 Stylosanthes hamata
high affinity sulphate transporter. SHST2.
CAA65291.1 X96431 Hordeum vulgare
high affinity sulphate transporter. HVST1.
CAA57710.1 X82255 Stylosanthes hamata
high affinity sulphate transporter. SHST1.
CAB42985.1 AJ238244 Aegilops tauschii
putative plasma membrane sulfate transport. putative high affinity sulfate transporter. st1.
AAK35215.1 AF355602 Zea mays
sulfate transporter ST1.
CAB42986.1 AJ238245 Aegilops tauschii
putative plasma membrane sulfate transport. putative high affinity sulfate transporter. st2.
CAA65536.1 X96761 Sporobolus stapfianus
sulphate transporter protein.
CAA57831.1 X82454 Stylosanthes hamata
low affinity sulphate transporter. SHST3.
CAA11413.1 AJ223495 Brassica juncea
sulfate permease. sp1.
AAB94543.1 AF016306 Zea mays
sulfate permease.
SEQ ID NO: 541
AAF36491.1 AF129479 Hordeum vulgare
HAK2. HAK2. similar to Hordeum vulgare K+ transporter HAK1.
BAB32443.1 AB055630 Phragmites australis
high-affinity potassium transporter. PcnHAK1.
BAB32444.1 AB055631 Phragmites australis
high-affinity potassium transporter. PceHAK1A.
BAB32445.1 AB055632 Phragmites australis
high-affinity potassium transporter. PceHAK1B.
BAB32442.1 AB055629 Phragmites australis
high-affinity potassium transporter. PcuHAK1.
AAC39315.1 AF025292 Hordeum vulgare
putative high-affinity potassium transporter. HvHAK1.
AAF36497.1 AF129485 Oryza sativa
HAK4. HAK4. OsHAK4; similar to Hordeum vulgare K+ transporter HAK1.

AAF36496.1 AF129484 Hordeum vulgare
HAK4. HAK4. HvHAK4; similar to Hordeum vulgare K+ transporter HAK1.
CAC14883.1 AJ297888 Hordeum vulgare
putative potassium transporter. hak1.
CAC14787.1 AJ297886 Hordeum vulgare
putative potassium transporter. hak1.
AAF36492.1 AF129480 Hordeum vulgare
HAK1B. HAK1B. HvHAK1B; similar to Hordeum vulgare K+ transporter HAK1.
CAC15061.1 AJ300161 Hordeum vulgare
potassium transporter. hak4.
SEQ ID NO: 542
AAA91063.1 M88254 Hevea brasiliensis
ethylene-inducible protein. ER1.
SEQ ID NO: 546
CAA75386.1 Y15113 Morinda citrifolia
3-deoxy-D-arabino-heptulosonate 7-phosphate synthase. DS3. 2-dehydro-3-
deoxyphosphoheptonate aldolase.
CAA79855.1 Z21792 Lycopersicon esculentum
phospho-2-dehydro-3-deoxyheptonate aldolase.
CAA79856.1 Z21793 Lycopersicon esculentum
phospho-2-dehydro-3-deoxyheptonate aldolase.
SEQ ID NO: 548
BAA96751.1 AP002521 Oryza sativa
Similar to Arabidopsis thaliana chromosome4, BAC clone T16H5; lectin like protein
(AL024486).
(AL024486). SEQ ID NO: 551
(AL024486). SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa
(AL024486). SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2.
(AL024486). SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum DNA-binding protein 2. WRKY2. transcription factor.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum DNA-binding protein 2. WRKY2. transcription factor. CAB97004.1 AJ278507 Solanum tuberosum putative transcription factor. WRKY DNA binding protein. WRKY1. CAA88326.1 Z48429 Avena fatua
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum DNA-binding protein 2. WRKY2. transcription factor. CAB97004.1 AJ278507 Solanum tuberosum putative transcription factor. WRKY DNA binding protein. WRKY1.
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum DNA-binding protein 2. WRKY2. transcription factor. CAB97004.1 AJ278507 Solanum tuberosum putative transcription factor. WRKY DNA binding protein. WRKY1. CAA88326.1 Z48429 Avena fatua binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein. AAC49527.1 U48831 Petroselinum crispum
SEQ ID NO: 551 BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. AAD32677.1 AF140554 Avena sativa DNA-binding protein WRKY1. wrky1. putative transcription factor. AAD16139.1 AF096299 Nicotiana tabacum DNA-binding protein 2. WRKY2. transcription factor. CAB97004.1 AJ278507 Solanum tuberosum putative transcription factor. WRKY DNA binding protein. WRKY1. CAA88326.1 Z48429 Avena fatua binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein.

AAC49529.1 U58540 Petroselinum crispum WRKY2. Contains two WRKY domains; WRKY-type DNA-binding protein. AAK16171.1 AC079887 Oryza sativa putative DNA-binding protein. OSJNBa0040E01.10. AAC37515.1 L44134 Cucumis sativus SPF1-like DNA-binding protein. AAD16138.1 AF096298 Nicotiana tabacum DNA-binding protein 1. WRKY1. transcription factor. AAD38283.1 AC007789 Oryza sativa putative WRKY DNA binding protein. OSJNBa0049B20.9. BAB18313.1 AP002865 Oryza sativa putative WRKY DNA binding protein. P0034C11.1. contains EST C26525(C12525). BAB40073.1 AP003074 Oryza sativa putative WRKY DNA binding protein. OSJNBa0004G10.20. contains EST C26525(C12525). Petroselinum crispum AAC49528.1 U56834 DNA-binding. WRKY3. WRKY-type DNA-binding protein. BAA77358.1 AB020023 Nicotiana tabacum WRKY domain Zn-finger type DNA-binding protein. DNA-binding protein NtWRKY3. AAG46150.1 AC018727 Oryza sativa putative DNA-binding protein. OSJNBa0056G17.18. CAA88331.1 Z48431 Avena fatua binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein. AAD32676.1 AF140553 Avena sativa DNA-binding protein WRKY3. wrky3. putative transcription factor. CAB66338.1 AJ279697 Betula pendula wrky-type DNA binding protein. wrky. AAF61863.1 AF193770 Nicotiana tabacum DNA-binding protein 3. WRKY3. transcription factor. AAF61864.1 AF193771 Nicotiana tabacum DNA-binding protein 4. WRKY4. transcription factor. AAD27591.1 AF121354 Petroselinum crispum binds sequence specifically to W Boxes (TTGACC). transcription factor. WRKY3. sequence specific DNA-binding protein. Matricaria chamomilla BAA87069.1 AB035271 elicitor-induced DNA-binding protein homolog. McWRKY1. **SEO ID NO: 553** AAF34428.1 AF172282 Oryza sativa receptor-like protein kinase. DUPR11.18. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12.

BAA94516.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAB07906.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.14.
BAA94517.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAB07905.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.13.
BAA94528.1 AP001800 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2 BAC T20K24; putative receptor-like protein kinase (AC002392).
BAA94529.2 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein. BAB21001.1 AB054061 Brassica rapa
•
S locus receptor kinase. SRK22.

AAA33915.1 L27821 Oryza sativa
receptor type serine/threonine kinase. protein kinase.
BAA92954.1 AP001551 Oryza sativa
Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821).
SEQ ID NO: 554
CAC05658.1 AJ250919 Brassica napus
endopolygalacturonase. pegaz.
CAC05657.1 AJ250918 Brassica napus
endopolygalacturonase. pgaz.
CAA65072.1 X95800 Brassica napus
polygalacturonase.
CAA90272.1 Z49971 Brassica napus
Hydrolytic enzyme. Polygalacturonase, pga.
CAA54448.1 X77231 Prunus persica
polygalacturonase. PG.
AAC14453.1 L12019 Actinidia deliciosa
polygalacturonase.
AAF71160.1 AF152758 Actinidia chinensis
polygalacturonase A. PGA.
AAA34178.1 M37304 Lycopersicon esculentum
polygalacturonase.
CAA32235.1 X14074 Lycopersicon esculentum
polygalacturonase.
CAA29148.1 X05656 Lycopersicon esculentum
polygalacturonase (AA 1-457).
AAA32914.1 L06094 Persea americana
cell wall degradation. polygalacturonase.
CAA47055.1 X66426 Persea americana
polygalacturonase.
AAC26512.1 AF062467 Cucumis melo
polygalacturonase precursor. MPG3.
CAA11846.1 AJ224147 Rubus idaeus
polygalacturonase. RAS3.
AAF61444.1 AF138858 Lycopersicon esculentum
hydrolyses polygalacturonic acid. polygalacturonase. XOPG1.
BAA88472.1 AB035890 Cucumis sativus
polygalacturonase. CUPG1.
AAD46483.1 AF128266 Glycine max
polygalacturonase PG1.
AAD46484.1 AF128267 Glycine max
polygalacturonase PG2.

AAC28905.1 AF001002 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 4.
TAPG4. expressed in abscission.
AAC28906.1 AF001003 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 5.
TAPG5. expressed in abscission.
AAC28903.1 AF001000 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 1.
TAPG1. expressed in abscission.
AAA80489.1 U23053 Lycopersicon esculentum
polygalacturonase precursor.
AAC64184.1 AF095577 Prunus persica
endopolygalacturonase.
AAC28902.2 AF000999 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 3.
TAPG3. expressed in abscission.
AAB09575.1 U70480 Lycopersicon esculentum
abscission polygalacturonase. TAPG2.
AAC28904.1 AF001001 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 2.
TAPG2. expressed in abscission.
CAA54150.1 X76735 Prunus persica
endopolygalacturonase.
AAC70951.1 AF072732 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella. polygalacturonase 7. specifically and
abundantly expressed in pistils.
AAC26511.1 AF062466 Cucumis melo
polygalacturonase precursor. MPG2.
AAB09576.1 U70481 Lycopersicon esculentum
abscission polygalacturonase. TAPG4.
AAC28947.1 AF029230 Lycopersicon esculentum
polygalacturonase. TPG6.
AAA82167.1 U09717 Gossypium hirsutum
polygalacturonase.
AAA58322.1 U09805 Gossypium barbadense
polygalacturonase.
CAA47052.1 X66422 Zea mays
polygalacturonase. PG.
AAG14416.1 AF248538 Nicotiana tabacum
NTS1 protein. similar to polygalacturonase.
CAB42886.1 AJ238848 Phleum pratense
polygalacturonase, pg.

CAA40850.1 X57627 Zea mays
polygalacturonase.
CAA46679.1 X65844 Zea mays
polygalacturonase. PGg6.
CAA40910.1 X57743 Zea mays
polygalacturonase.
CAA44249.1 X62385 Zea mays
polygalacturonase.
CAA45751.1 X64408 Zea mays
polygalacturonase. PG. pollen-preferentially expressed.
CAA40851.1 X57628 Zea mays
polygalacturonase.
CAA46680.1 X65845 Zea mays
polygalacturonase. PGg14.
AAC26510.1 AF062465 Cucumis melo
polygalacturonase precursor. MPG1.
SEQ ID NO: 556
CAA51734.1 X73301 Vigna mungo
alpha-amylase. amyVm1.
CAA37217.1 X53049 Vigna mungo
alpha-amylase (AA 1-421).
BAA33879.1 AB015131 Phaseolus vulgaris
alpha-amylase.
AAA16513.1 U06754 Cuscuta reflexa
starch hydrolysis. alpha amylase precursor. CUS AMY2.
AAA98615.1 J04202 Hordeum vulgare
alpha-amylase. Amy46. precursor.
AAA98790.1 K02637 Hordeum vulgare
alpha-amylase type B. Amy6-4. precursor.
CAA33298.1 X15226 Hordeum vulgare
alpha-amylase.
AAA33885.1 M24286 Oryza sativa
alpha-amylase (EC 3.2.1.1).
CAA34516.1 X16509 Oryza sativa
alpha-amylase.
CAA72144.1 Y11277 Hordeum vulgare
alpha-amylase. amy.
CAA33299.1 X15227 Hordeum vulgare
alpha amylase.
AAA32925.1 M17126 Hordeum vulgare
alpha-amylase 1.

AAA32927.1 M17128 Hordeum vulgare
alpha-amylase 2.
AAA32929.1 J01236 Hordeum vulgare
alpha-amylase type A, EC 3.2.1.1.
CAA39777.1 X56337 Oryza sativa
alpha-amylase. RAmy3B.
CAA09323.1 AJ010728 Avena fatua
alpha amylase. alpha-Amy2A.
AAA33897.1 M24941 Oryza sativa
alpha-amylase precursor (EC 3.2.1.1).
CAA09324.1 AJ010729 Avena fatua
alpha-amylase. alpha-Amy2D.
CAA28803.1 X05166 Hordeum vulgare
alpha-amylase type A. Amy32b.
AAA32926.1 M17125 Hordeum vulgare
alpha-amylase 1.
CAA39778.1 X56338 Oryza sativa
alpha-amylase. RAmy3C.
AAA32935.1 M15208 Hordeum vulgare
alpha-amylase.
AAA33895.1 M59351 Oryza sativa
alpha-amylase. RAmy3D.
AAA33896.1 M59352 Oryza sativa
alpha-amylase. RAmy3E.
AAA50161.1 L25805 Zea mays
alpha-amylase.
AAA33894.1 M74177 Oryza sativa
alpha-amylase. amy2A.
CAA72143.1 Y11276 Hordeum vulgare
alpha-amylase, amy.
CAA39776.1 X56336 Oryza sativa
alpha-amylase. RAmy3A.
CAA45903.1 X64619 Oryza sativa
alpha-amylase. Amyc2. starts hydrolysis during seed germination.
AAA33886.1 M24287 Oryza sativa
alpha-amylase (EC 3.2.1.1).
AAA32928.1 M17127 Hordeum vulgare
alpha-amylase 2.
AAA32933.1 K02638 Hordeum vulgare
pre-alpha-amylase type B, EC 3.2.1.1.
AAA91883.1 M81682 Solanum tuberosum
alpha-amylase. Amy23.

AAA34259.1 M16991 Triticum aestivum
alpha-amylase.
CAA29252.1 X05809 Triticum aestivum
alpha-amylase.
AAA91884.1 M79328 Solanum tuberosum
alpha-amylase.
AAF63239.1 AF153828 Malus x domestica
degrades starch. alpha-amylase. alpha-amylase by similarity.
AAA32930.1 M10056 Hordeum vulgare
alpha-amylase type B, EC 3.2.1.1.
AAA32931.1 K02635 Hordeum vulgare
alpha-amylase type B, EC 3.2.1.1.
CAA36485.1 X52240 Oryza sativa
alpha-amylase. OSamy-c.
AAA32932.1 K02636 Hordeum vulgare
alpha-amylase type B, EC 3.2.1.1.
SEQ ID NO: 557
CAA90272.1 ZA9971 Brassica napus
Hydrolytic enzyme. Polygalacturonase. pga.
CAA65072.1 X95800 Brassica napus
polygalacturonase.
CAA67020.1 X98373 Brassica napus
endo-polygalacturonidase.
CAC05658.1 AJ250919 Brassica napus
endopolygalacturonase. pegaz.
CAC05657.1 AJ250918 Brassica napus
endopolygalacturonase. pgaz.
AAC14453.1 L12019 Actinidia deliciosa
polygalacturonase.
AAF71160.1 AF152758 Actinidia chinensis
polygalacturonase A. PGA.
CAA54448.1 X77231 Prunus persica
polygalacturonase. PG.
AAA34178.1 M37304 Lycopersicon esculentum
polygalacturonase.
CAA29148.1 X05656 Lycopersicon esculentum
polygalacturonase (AA 1-457).
CAA32235.1 X14074 Lycopersicon esculentum
polygalacturonase.
AAA32914.1 L06094 Persea americana
cell wall degradation. polygalacturonase.
F-7/D

CAA47055.1 X66426 Persea americana
polygalacturonase.
AAC26512.1 AF062467 Cucumis melo
polygalacturonase precursor. MPG3.
CAA11846.1 AJ224147 Rubus idaeus
polygalacturonase. RAS3.
BAA88472.1 AB035890 Cucumis sativus
polygalacturonase. CUPG1.
AAF61444.1 AF138858 Lycopersicon esculentum
hydrolyses polygalacturonic acid. polygalacturonase. XOPG1.
AAA80489.1 U23053 Lycopersicon esculentum
polygalacturonase precursor.
AAC28903.1 AF001000 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 1.
TAPG1. expressed in abscission.
AAB09575.1 U70480 Lycopersicon esculentum
abscission polygalacturonase. TAPG2.
AAC28904.1 AF001001 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 2.
TAPG2. expressed in abscission.
AAC28905.1 AF001002 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 4. TAPG4. expressed in abscission.
AAC64184.1 AF095577 Prunus persica
endopolygalacturonase.
AAD46483.1 AF128266 Glycine max
polygalacturonase PG1.
AAC28906.1 AF001003 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 5.
TAPG5. expressed in abscission.
AAD46484.1 AF128267 Glycine max
polygalacturonase PG2.
CAA54150.1 X76735 Prunus persica
endopolygalacturonase.
AAC26511.1 AF062466 Cucumis melo
polygalacturonase precursor. MPG2.
AAC28902.2 AF000999 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella of plant cells. polygalacturonase 3.
TAPG3. expressed in abscission.
AAC70951.1 AF072732 Lycopersicon esculentum
hydrolyzes pectin in the cell wall and middle lamella. polygalacturonase 7. specifically and
abundantly expressed in pistils.

CAA MOCO 1 TYCCAO T
CAA47052.1 X66422 Zea mays
polygalacturonase. PG.
AAC28947.1 AF029230 Lycopersicon esculentum
polygalacturonase. TPG6.
AAA82167.1 U09717 Gossypium hirsutum
polygalacturonase.
AAB09576.1 U70481 Lycopersicon esculentum
abscission polygalacturonase. TAPG4.
CAA40910.1 X57743 Zea mays
polygalacturonase.
CAA44249.1 X62385 Zea mays
polygalacturonase.
CAA40850.1 X57627 Zea mays
polygalacturonase.
AAG14416.1 AF248538 Nicotiana tabacum
NTS1 protein. similar to polygalacturonase.
CAA46679.1 X65844 Zea mays
polygalacturonase. PGg6.
AAC26510.1 AF062465 Cucumis melo
polygalacturonase precursor. MPG1.
AAA58322.1 U09805 Gossypium barbadense
polygalacturonase.
CAA46680.1 X65845 Zea mays
polygalacturonase. PGg14.
CAA40851.1 X57628 Zea mays
polygalacturonase.
CAA45751.1 X64408 Zea mays
polygalacturonase. PG. pollen-preferentially expressed.
CAB42886.1 AJ238848 Phleum pratense
polygalacturonase. pg.
SEQ ID NO: 559
CAB43937.1 AJ006348 Fragaria x ananassa
cell wall hydrolysis. endo-beta-1,4-glucanase. eg1.
AAC95009.1 AF074923 Fragaria x ananassa
endo-1,4-beta-glucanase precursor. Cell. 1,4-beta-glucanohydrolase.
AAC12684.1 U76725 Pinus radiata
endo-beta-1,4-glucanase. PrCell. cellulase; PRCEL1.
AAA69909.1 U13055 Lycopersicon esculentum
cell wall hydrolase. endo-1,4-beta-glucanase precursor. Cel2. cellulase.
CAA65600.1 X96856 Prunus persica
endo-beta-1,4-glucanase. ppEG1.

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CAA65597.1 X96853 Prunus persica
endo-beta-1,4-glucanase. pcel1.
CAA65827.1 X97189 Capsicum annuum
endo-beta-1,4-glucanase. ccel3. cellulase.
AAC62241.1 AF077339 Lycopersicon esculentum
endo-1,4-beta-glucanase. cel5. cellulase; also expressed in fruit and pistils.
BAA85150.1 AB032830 Pisum sativum
endo-1,4-beta-glucanase. EGL2.
AAA80495.1 U20590 Lycopersicon esculentum
endo-1,4-beta-glucanase precursor. cellulase.
BAB32662.1 AB055886 Atriplex lentiformis
beta-1,4-glucanase. Al-cel1. cellulase.
CAA65828.1 X97190 Capsicum annuum
endo-beta-1,4-glucanase. ccel2.
AAC12685.1 U76756 Pinus radiata
endo-beta-1,4-glucanase. PrCel2. cellulase; PRCEL2.
BAA77239.1 AB025796 Populus alba
endo-1,4-beta glucanase. POPCEL2. cellulase.
CAB59900.1 AJ010950 Capsicum annuum
cell wall degradation. endo-beta-1,4-glucanase. eg2.
BAB39483.1 AB049200 Populus alba
endo-1,4-beta-glucanase. PopCel2.
BAB39482.1 AB049199 Populus alba
endo-1,4-beta glucanase. PopCel1.
CAA72133.1 Y11268 Lycopersicon esculentum
endo-1,4-beta-D-glucanase. cel7.
AAA96135.1 L41046 Pisum sativum
endo-1,4-beta-glucanase. EGL1.
AAC78504.1 U34754 Phaseolus vulgaris
endo-1,4-beta-D-glucanase. cellulase.
AAA02563.1 M57400 Phaseolus vulgaris
cellulase precursor. endo-1,4-beta-D-glucanase.
CAA60737.1 X87323 Capsicum annuum
catalyzes hydrolysis of cell wall polysaccharides. cellulase. cell. Beta-1,4-
endoglycanohydrolase.
CAA65826.1 X97188 Capsicum annuum
endo-beta-1,4-glucanase. ccell. cellulase.
AAA69908.1 U13054 Lycopersicon esculentum
cell wall hydrolase. endo-1,4-beta-glucanase precursor. Cel1. cellulase.
CAB43938.1 AJ006349 Fragaria x ananassa
cell wall hydrolysis. endo-beta-1,4-glucanase. eg3.

BAA96209.1 AP002094 Oryza sativa EST C72268(E1328) corresponds to a region of the predicted gene. Similar to Fragaria x ananassa endo-beta-1,4-glucanase (AJ006349). BAA96207.1 AP002094 Oryza sativa EST C72268(E1328) corresponds to a region of the predicted gene. Similar to Fragaria x ananassa endo-beta-1,4-glucanase (AJ006349). AAD08699.1 AF098292 Lycopersicon esculentum endo-beta-1,4-D-glucanase. Cel8. BAA94257.1 AB040769 Hordeum vulgare endo-1,4-beta-glucanase Cel1. Cel1. AAC49704.1 U78526 Lycopersicon esculentum endo-1,4-beta-glucanase. Cel3. CAB51903.1 AJ242807 Brassica napus endo-1,4-beta-D-glucanase. Cel16. cellulase. AAA20082.1 U00730 Glycine max CMCase; cellulase; endo-1,4-beta-D-glucanase. CAA11301.1 AJ223386 Fragaria x ananassa endo-beta-1,4-glucanase. faEG1. partial cDNA obtained by RT-PCR amplification. CAA11302.1 AJ223387 Fragaria x ananassa endo-beta-1,4-glucanase. partial cDNA obtained by RT-PCR amplification. BAA21111.1 D88417 Gossypium hirsutum endo-1,4-beta-glucanase. AAA20083.1 U00731 Glycine max CMCase; cellulase; endo-1,4-beta-D-glucanase. **SEQ ID NO: 560** AAB97617.1 U83687 Apium graveolens NADPH-dependent mannose 6-phosphate reductase. m6pr. aldo-keto reductase; similar to aldose 6-phosphate reductase also known as NADP-sorbitol-6-phosphate dehydrogenase encoded by GenBank Accession Number D11080. AAC97607.1 AF057134 Malus x domestica synthesizes sorbitol, a major photosynthetic product in many members of the Rosaceae family. NADP-dependent sorbitol 6-phosphate dehydrogenase. S6PDH. BAA01853.1 D11080 Malus x domestica NADP-dependent D-sorbitol-6-phosphate dehydrogenase. S6PDH. **SEQ ID NO: 561** CAB43938.1 AJ006349 Fragaria x ananassa cell wall hydrolysis. endo-beta-1,4-glucanase. eg3. Oryza sativa BAA96209.1 AP002094 EST C72268(E1328) corresponds to a region of the predicted gene. Similar to Fragaria x ananassa endo-beta-1,4-glucanase (AJ006349). BAA96207.1 AP002094 Oryza sativa EST C72268(E1328) corresponds to a region of the predicted gene. Similar to Fragaria x

ananassa endo-beta-1,4-glucanase (AJ006349).

AAD	08699.1 AF098292 Lycopersicon esculentum
	A Company of the Comp
	beta-1,4-D-glucanase. Cel8. 21111.1 D88417 Gossypium hirsutum
	21111.1 D88417 Gossypium hirsutum 1,4-beta-glucanase.
	· · · · · · · · · · · · · · · · · · ·
	beta-1,4-glucanase. ccel2.
	59900.1 AJ010950 Capsicum annuum
	vall degradation, endo-beta-1,4-glucanase, eg2.
	95009.1 AF074923 Fragaria x ananassa
	1,4-beta-glucanase precursor. Cel1. 1,4-beta-glucanohydrolase.
	43937.1 AJ006348 Fragaria x ananassa
	vall hydrolysis. endo-beta-1,4-glucanase. eg1.
	80495.1 U20590 Lycopersicon esculentum
	1,4-beta-glucanase precursor. cellulase.
	85150.1 AB032830 Pisum sativum
	1,4-beta-glucanase. EGL2.
	12684.1 U76725 Pinus radiata
	beta-1,4-glucanase. PrCel1. cellulase; PRCEL1.
	32662.1 AB055886 Atriplex lentiformis
	1,4-glucanase. Al-cel1. cellulase.
	62241.1 AF077339 Lycopersicon esculentum
	1,4-beta-glucanase. cel5. cellulase; also expressed in fruit and pistils.
	65826.1 X97188 Capsicum annuum
	beta-1,4-glucanase. ccell. cellulase.
	69909.1 U13055 Lycopersicon esculentum
	vall hydrolase. endo-1,4-beta-glucanase precursor. Cel2. cellulase.
	65597.1 X96853 Prunus persica
	beta-1,4-glucanase. pcel1.
	65600.1 X96856 Prunus persica
	beta-1,4-glucanase. ppEG1.
	12685.1 U76756 Pinus radiata
endo-	beta-1,4-glucanase. PrCel2. cellulase; PRCEL2.
BAB:	39482.1 AB049199 Populus alba
endo-	1,4-beta glucanase. PopCel1.
CAA	65827.1 X97189 Capsicum annuum
endo-	beta-1,4-glucanase. ccel3. cellulase.
BAB:	39483.1 AB049200 Populus alba
endo-	-1,4-beta-glucanase. PopCel2.
BAA	77239.1 AB025796 Populus alba
endo-	-1,4-beta glucanase. POPCEL2. cellulase.
AAA	69908.1 U13054 Lycopersicon esculentum
cell w	vall hydrolase. endo-1,4-beta-glucanase precursor. Cel1. cellulase.

AAC78504.1 U34754 Phaseolus vulgaris
endo-1,4-beta-D-glucanase. cellulase.
AAA02563.1 M57400 Phaseolus vulgaris
cellulase precursor. endo-1,4-beta-D-glucanase.
CAA72133.1 Y11268 Lycopersicon esculentum
endo-1,4-beta-D-glucanase. cel7.
AAA96135.1 L41046 Pisum sativum
endo-1,4-beta-glucanase. EGL1.
CAB51903.1 AJ242807 Brassica napus
endo-1,4-beta-D-glucanase. Cel16. cellulase.
AAC49704.1 U78526 Lycopersicon esculentum
endo-1,4-beta-glucanase. Cel3.
BAA94257.1 AB040769 Hordeum vulgare
endo-1,4-beta-glucanase Cel1. Cel1.
CAA11302.1 AJ223387 Fragaria x ananassa
endo-beta-1,4-glucanase. partial cDNA obtained by RT-PCR amplification.
AAA20082.1 U00730 Glycine max
CMCase; cellulase; endo-1,4-beta-D-glucanase.
CAA11301.1 AJ223386 Fragaria x ananassa
endo-beta-1,4-glucanase. faEG1. partial cDNA obtained by RT-PCR amplification.
AAC64045.1 AF077340 Lycopersicon esculentum
endo-1,4-beta-glucanase. cel5. cellulase.
SEQ ID NO: 562
AAD53011.1 AF089848 Brassica napus
senescence-specific cysteine protease. SAG12-1. BnSAG12-1.
AAD53012.1 AF089849 Brassica napus
senescence-specific cysteine protease. SAG12-2. BnSAG12-2.
AAK27968.1 AF242372 Ipomoea batatas
cysteine protease. SPCP1.
AAA50755.1 U13940 Alnus glutinosa
cysteine proteinase. putative preproprotein.
BAB13759.1 AB040454 Astragalus sinicus
cysteine proteinase. AsNODf32. preproprotein putative.
AAC62396.1 AF050756 Ricinus communis
cysteine endopeptidase precursor. CysEP.
CAB09698.1 Z97022 Hordeum vulgare
cysteine proteinase. putative.
CAA52425.1 X74406 Hemerocallis sp.
thiol-protease. SEN102.
BAA83472.1 AB004648 Oryza sativa
cysteine endopeptidase. RepA.

CAA56844.1 X80876 Oryza sativa
cysteine protease.
BAA8898.1 AB020961 Zea mays
cysteine protease component of protease-inhibitor complex. CPPIC.
AAC35211.1 U12637 Hemerocallis hybrid cultivar
cysteine proteinase. SEN11.
CAB09697.1 Z97021 Hordeum vulgare
cysteine endopeptidase EP-A. precursor.
AAB88263.1 AF019147 Zea mays
cysteine proteinase Mir3. mir3.
AAD28477.1 AF133839 Sandersonia aurantiaca
papain-like cysteine protease. PRT5. senescence-related.
CAB16317.1 Z99173 Nicotiana tabacum
storage protein hydrolysis. cysteine proteinase precursor.
CAB09699.1 Z97023 Hordeum vulgare
cysteine endopeptidase EP-A.
AAD10337.1 U94591 Hordeum vulgare
cysteine proteinase precursor. EPA.
CAA06243.1 AJ004958 Pisum sativum
thiol-protease. pre-pro-TPE4A protein. tpE4A.
CAB53515.1 AJ245924 Solanum tuberosum
proteolysis. cysteine protease. cyp.
AAD48496.1 AF172856 Lycopersicon esculentum
cysteine protease TDI-65. tdi-65. induced by drought; localized in the nuclei and chloroplast
(Tabaeizadeh, Z. et al., 1995. Protoplasma, 186:208-219).
CAA05894.1 AJ003137 Lycopersicon esculentum
cysteine protease. CYP1. C14.
AAA79915.1 U17135 Dianthus caryophyllus
cysteine proteinase. DCCP1. expressed in senescing flower petals.
AAB37233.1 U34747 Phalaenopsis sp. SM9108
cysteine proteinase.
CAB17076.1 Z99954 Phaseolus vulgaris
protein hydrolysis. cysteine proteinase precursor.
CAA84378.1 Z34895 Vicia sativa
storage protein degradation, cysteine proteinase.
CAA53377.1 X75749 Vicia sativa
storage protein hydrolysis. cysteine protease.
CAB17074.1 Z99952 Phaseolus vulgaris
degradation of storage proteins. cysteine proteinase precursor.
AAB68374.1 U52970 Phaseolus vulgaris
suggested to initiate phaseolin degradation during germination. cysteine endopeptidase 1. PvCEP-1.

CAA12118.1 AJ224766 Phaseolus vulgaris
phaseolin degradation. cysteine protease.
AAC49455.1 U41902 Pseudotsuga menziesii
cysteine protease. Pseudotzain. PM33cysP.
CAA46863.1 X66061 Pisum sativum
thiolprotease. tpp. start codon ttg.
AAB41816.1 U44947 Pisum sativum
NTH1. PsCyp1. cysteine protease homolog.
BAA83473.1 AB004819 Oryza sativa
cysteine endopeptidase. Rep1.
BAA22544.1 D38532 Ananas comosus
precursor of cysteine proteinase. FBSB precursor, stem bromelain precursor in fruit.
BAA11170.1 D76415 Oryza sativa
cysteine proteinase.
AAD20453.1 AF099203 Oryza sativa
cysteine endopeptidase precursor. EP3A.
CAA08860.1 AJ009829 Ananas comosus
cysteine proteinase precursor, AN8. an8.
AAA85036.1 U19384 Hordeum vulgare
cysteine proteinase EPB2 precursor.
AAA85035.1 U19359 Hordeum vulgare
cysteine proteinase EPB1 precursor.
SEQ ID NO: 565
AAA97411.1 U51918 Pisum sativum
pyruvate dehydrogenase E1 alpha subunit.
CAA81558.1 Z26949 Solanum tuberosum
subunit of the mitochondrial pyruvate dehydrogenase complex. E1 alpha subunit of pyruvate
dehydrogenase precursor.
AAC72195.1 AF069911 Zea mays
pyruvate dehydrogenase E1 alpha subunit.
AAG43499.1 AF209924 Lycopersicon esculentum
pyruvate dehydrogenase.
CAB08111.1 Z94180 Lycopersicon esculentum
branched chain alpha-keto acid dehydrogenase E1-alpha subunit.
SEQ ID NO: 566
AAD55090.1 AF178653 Vitis riparia
thaumatin. osmotin; pathogenesis-related protein.
CAA51432.1 X72928 Solanum commersonii
osmotin-like protein.
CAA47601.1 X67121 Solanum commersonii
osmotin-like protein.
CAC34055.1 AJ297410 Capsicum annuum
osmotin-like protein. pr5 p23.
- -

CAA47047.1 X66416 Lycopersicon esculentum
tpm 1. Induced during viroid infection. Osmotin-like, antifungal protein homologue.
AAB23375.1 S44889 Nicotiana tabacum
osmotin. osmotin. pathogenesis-related protein homolog; This sequence comes from Fig. 3.
AAB22459.2 S40046 Nicotiana tabacum
osmotin. abscisic acid-activated. basic PR-like protein; This sequence comes from Fig. 1A; conceptual translation presented here differs from translation in publication; mismatch(181[R->G]).
AAG16625.1 AY007309 Solanum dulcamara
cryoprotective osmotin-like protein.
CAA46623.1 X65701 Nicotiana tabacum
osmotin. AP24.
CAA46622.1 X65700 Nicotiana tabacum osmotin. AP24.
CAA51431.1 X72927 Solanum commersonii
osmotin-like protein.
CAA64620.1 X95308 Nicotiana tabacum
PR protein. osmotin.
CAA51430.1 X72926 Solanum commersonii
osmotin-like protein.
AAC64171.1 AF093743 Lycopersicon esculentum
pathogenesis-related protein osmotin precursor. NP24.
AAB61590.1 AF003007 Vitis vinifera
VVTL1. osmotin-like protein, PR-5 protein; thaumatin-like protein.
BAA11180.1 D76437 Nicotiana sylvestris
antifungal activity. neutral PR-5 (osmotin-like protein, PR-5d). neutral isoform of
pathogenesis-related protein gruop 5.
AAA34087.1 M64081 Nicotiana tabacum
osmotin-like protein. OLP1.
CAA47669.1 X67244 Solanum commersonii
osmotin-like protein.
CAA71883.1 Y10992 Vitis vinifera
osmotin-like protein. OSM1.
AAF13707.1 AF199508 Fragaria x ananassa
osmotin-like protein. olp.
AAA34089.1 M29279 Nicotiana tabacum
osmotin.
CAA43854.1 X61679 Nicotiana tabacum
osmotin.
CAA04642.1 AJ001268 Hordeum vulgare
antifungal. basic pathogenesis-related protein PR5. osmotin/permatin-like.
CAC22330.1 AJ298304 Fagus sylvatica
stress protein. osmotin-like protein. olp2.

CAC22329.1 AJ298303 Fagus sylvatica
stress protein. osmotin-like protein. olp.
AAB67852.1 L76377 Oryza sativa
osmotin. 14b.
CAB36911.1 AJ000692 Quercus suber
stress protein. osmotin-like protein. olp.
SEQ ID NO: 569
BAA95814.1 AP002069 Oryza sativa
ESTs AU082579(S2069),D40238(S2069) correspond to a region of the predicted gene.
Similar to Arabidopsis thaliana vesicle-associated membrane protein 7C; synaptobrevin 7C.
(AF025332).
SEQ ID NO: 572
AAA92677.1 U13736 Pisum sativum
binds calcium. calmodulin-like protein.
AAA34015.1 L01433 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-4. putative.
AAA33948.1 L19359 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-5. putative.
CAA66159.1 X97558 Capsicum annuum
calmodulin-1.
CAA09302.1 AJ010645 Capsicum annuum
calcium binding protein. calmodulin 3 protein. calmodulin 3.
AAA34144.1 M67472 Lycopersicon esculentum
calmodulin. CALM1LE.
CAA62150.1 X90560 Physcomitrella patens
Calmodulin. CaM.
AAB46588.1 U83402 Capsicum annuum
calmodulin.
BAA87825.1 AP000815 Oryza sativa
ESTs AU030013(E50493), AU081341(E50493) correspond to a region of the predicted gene.
Similar to O.sativa gene encoding calmodulin. (Z12828).
AAF65511.1 AF108889 Capsicum annuum
calmodulin.
AAA85157.1 U20297 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85156.1 U20296 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA62351.1 U20295 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85155.1 U20294 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA33900.1 L18914 Oryza sativa
calcium binding protein, signal transduction. calmodulin.

CAA78288.1 Z12828 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
AAC49583.1 U48692 Triticum aestivum
calmodulin TaCaM2-3. calcium-binding protein.
AAC49582.1 U48691 Triticum aestivum
calmodulin TaCaM2-2. calcium-binding protein.
CAA61980.1 X89890 Bidens pilosa
Calmodulin.
CAA67054.1 X98404 Capsicum annuum
calmodulin-2.
AAA33083.1 M20729 Chlamydomonas reinhardtii
calmodulin.
AAG11418.1 AF292108 Prunus avium
calmodulin.
AAF33852.1 AF231026 Oryza sativa
calmodulin-like protein.
AAA92681.1 U13882 Pisum sativum
calcium-binding protein. calmodulin.
AAA33706.1 M80836 Petunia x hybrida
calmodulin. CAM81.
AAA33705.1 M80831 Petunia x hybrida
calmodulin-related protein. CAM53.
AAA98933.1 U37936 Oryza sativa
novel calmodulin-like protein. C-terminal of this sequence contains a CAAX box which is
common in signal transport protein, but not in calmodulin.
CAA43143.1 X60738 Malus x domestica
Calmodulin. CaM.
CAA78301.1 Z12839 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin.
AAA33397.1 L18912 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin. putative.
CAA42423.1 X59751 Daucus carota
calmodulin. Ccam-1.
AAF73157.1 AF150059 Brassica napus
calmodulin. CaM1. involved in seed germination.
AAA19571.1 U10150 Brassica napus
calcium binding. calmodulin. bcm1.
AAA87347.1 M88307 Brassica juncea
calmodulin.
AAG27432.1 AF295637 Elaeis guineensis
calmodulin.
BAA94697.1 AB041712 Chara corallina
calmodulin. cccam2.

BAA94696.1 AB041711 Chara corallina
calmodulin. cccam1.
BAA96536.1 AB044286 Chara corallina
calmodulin. ccam.
AAC18355.1 AF064456 Oryza sativa subsp. indica
calmodulin-like protein. CAM-like.
AAA34237.1 L20691 Vigna radiata
calmodulin.
CAA52602.1 X74490 Zea mays
Calmodulin, ZMCALM1.
CAA54583.1 X77397 Zea mays
calmodulin. CaM2.
AAC49585.1 U49103 Triticum aestivum
calmodulin TaCaM3-2. calcium-binding protein.
AAC49586.1 U49104 Triticum aestivum
calmodulin TaCaM3-3. calcium-binding protein.
AAC49587.1 U49105 Triticum aestivum
calmodulin TaCaM4-1. calcium-binding protein.
AAC49580.1 U48689 Triticum aestivum
calmodulin TaCaM1-3. calcium-binding protein.
AAC49584.1 U48693 Triticum aestivum
calmodulin TaCaM3-1. calcium-binding protein.
SEQ ID NO: 575
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
AAB48444.1 U82367 Solanum tuberosum
UDP-glucose glucosyltransferase.
CAA54610.1 X77460 Manihot esculenta
UTP-glucose glucosyltransferase. CGT4.

AAD04166.1 AF101972 Phaseolus lunatus catalyzes formation of O-glucosylzeatin from zeatin and UDPG; catalyzes formation of Oxylosylzeatin from zeatin and UDPX, zeatin O-glucosyltransferase. ZOG1, cytokinin Oglucosyltransferase. BAB17182.1 AP002843 Oryza sativa putative UTP-glucose glucosyltransferase. P0407B12.19. BAA93039.1 AB033758 Citrus unshiu limonoid UDP-glucosyltransferase. LGTase. AAF61647.1 AF190634 Nicotiana tabacum UDP-glucose:salicylic acid glucosyltransferase. SA-GTase. BAB17176.1 AP002843 Oryza sativa putative UTP-glucose glucosyltransferase. P0407B12.13. CAC09351.1 AL442007 Orvza sativa putative glucosyltransferase. H0212B02.7. CAA54611.1 X77461 Manihot esculenta UTP-glucose glucosyltransferase. CGT2. AAF98390.1 AF287143 Brassica napus catalyzes the transfer of glucose from UDP-glucose to sinapate and some other hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate glucosyltransferase. SGT1. SGT. AAK16181.1 AC079887 Oryza sativa putative glucosyltransferase. OSJNBa0040E01.16. AAK16178.1 AC079887 Oryza sativa putative glucosyltransferase. OSJNBa0040E01.5. CAA54612.1 X77462 Manihot esculenta UTP-glucose glucosyltransferase. CGT5. AAK16180.1 AC079887 Oryza sativa putative glucosyltransferase. OSJNBa0040E01.21. AAF17077.1 AF199453 Sorghum bicolor UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-oglucosyltransferase. CAA54609.1 X77459 Manihot esculenta UTP-glucose glucosyltransferase. CGT1. BAB41025.1 AB047098 Vitis vinifera UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT1. AAK16172.1 AC079887 Oryza sativa putative glucosyltransferase. OSJNBa0040E01.14. BAB41019.1 AB047092 Vitis vinifera UDP-glucose:flavonoid 3-O-glucosyltransferase, ItUFGT1. Vitis labrusca x Vitis vinifera BAB41018.1 AB047091 UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT2. The gene originated in one of the parents V. vinifera cv. Centennial.

BAB41023.1 AB047096 Vitis vinifera
BAB41023.1 AB047090 VIUS VIIIIGIA
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT1.
BAB41021.1 AB047094 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT1.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
AAB81682.1 AF000371 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
BAB41017.1 AB047090 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT1. The gene was derived from one
of the parents V. labruscana cv. Ishiharawase.
BAB41022.1 AB047095 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT2.
BAB41020.1 AB047093 Vitis vinifera
UDP-glucose: flavonoid 3-O-glucosyltransferase. ItUFGT2.
BAB41024.1 AB047097 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT2.
AAB81683.1 AF000372 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
BAB41026.1 AB047099 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT2.
CAA54613.1 X77463 Manihot esculenta
UTP-glucose glucosyltransferase. CGT6.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
SEQ ID NO: 576
CAB60277.1 AJ002586 Solanum tuberosum
UCP.
CAA72107.1 Y11220 Solanum tuberosum
mitochondrial uncoupling protein.
BAA92172.1 AB024733 Symplocarpus renifolius
SfUCPa. SfUCPa.
BAB40658.1 AB049998 Oryza sativa
uncoupling protein. OsUCP2.
BAA92173.1 AB024734 Symplocarpus renifolius
SfUCPb. SfUCPb.
BAB16385.1 AB042429 Triticum aestivum
uncoupling protein. WhUCP1b.
BAB16384.1 AB042428 Triticum aestivum
uncoupling protein. WhUCP1a.

DADAGGET ADAGGET O
BAB40657.1 AB049997 Oryza sativa
uncoupling protein. OsUCP1.
SEQ ID NO: 577
AAA19571.1 U10150 Brassica napus
calcium binding. calmodulin. bcm1.
AAA87347.1 M88307 Brassica juncea
calmodulin.
AAA92681.1 U13882 Pisum sativum
calcium-binding protein. calmodulin.
AAA33706.1 M80836 Petunia x hybrida
calmodulin. CAM81.
CAA43143.1 X60738 Malus x domestica
Calmodulin. CaM.
CAA78301.1 Z12839 Lilium longiflorum
calcium binding protein, signal transduction, calmodulin.
AAA33397.1 L18912 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin. putative.
CAA42423.1 X59751 Daucus carota
calmodulin, Ccam-1.
AAG27432.1 AF295637 Elaeis guineensis
calmodulin.
AAG11418.1 AF292108 Prunus avium
calmodulin.
AAA34237.1 L20691 Vigna radiata
calmodulin.
AAC49587.1 U49105 Triticum aestiyum
calmodulin TaCaM4-1. calcium-binding protein.
AAC49586.1 U49104 Triticum aestivum
calmodulin TaCaM3-3. calcium-binding protein.
AAC49585.1 U49103 Triticum aestivum
calmodulin TaCaM3-2. calcium-binding protein.
AAC49584.1 U48693 Triticum aestivum
calmodulin TaCaM3-1. calcium-binding protein.
AAC49580.1 U48689 Triticum aestivum
calmodulin TaCaM1-3. calcium-binding protein.
AAC49579.1 U48688 Triticum aestivum
calmodulin TaCaM1-2. calcium binding protein.
AAC49578.1 U48242 Triticum aestivum
calmodulin TaCaM1-1. calcium-binding.
AAA03580.1 L01431 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-2. putative.
catorum-omaing regulatory protein, cannoquim, SCatyr-2, putative.

AAB36130.1 S81594 Vigna radiata
auxin-regulated calmodulin. auxin-regulated calmodulin, arCaM. This sequence comes from Fig. 1; arCaM.
AAA33901.1 L18913 Oryza sativa
calcium binding protein, signal transduction. calmodulin. putative.
CAA78287.1 Z12827 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
AAB46588.1 U83402 Capsicum annuum
calmodulin.
AAA32938.1 M27303 Hordeum vulgare
calmodulin.
BAA88540.1 AP000969 Oryza sativa
ESTs AU081349(E61253), D41425(S3918) correspond to a region of the predicted gene.
Similar to calmodulin. (AF042840).
AAF65511.1 AF108889 Capsicum annuum
calmodulin.
AAC36059.1 AF042840 Oryza sativa
calmodulin. CaM1.
AAA34238.1 L20507 Vigna radiata
calmodulin.
AAA34014.1 L01432 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-3. putative.
AAA34013.1 L01430 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-1. putative.
CAA36644.1 X52398 Medicago sativa
calmodulin (AA 1-149).
AAB68399.1 U79736 Helianthus annuus
calmodulin. HaCaM.
AAD10244.1 AF030032 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
AAA33705.1 M80831 Petunia x hybrida
calmodulin-related protein. CAM53.
AAA16320.1 L14071 Bryonia dioica
calmodulin. Bc329. calcium-binding sites (amino acid #): 1. (2133); 2. (5768); 3. (94106); 4. (130141).
CAA61980.1 X89890 Bidens pilosa
Calmodulin.
AAA33900.1 L18914 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
CAA78288.1 Z12828 Oryza sativa
calcium binding protein, signal transduction. calmodulin.

CAA74307.1 Y13974 Zea mays
calmodulin.
AAC49583.1 U48692 Triticum aestivum
calmodulin TaCaM2-3. calcium-binding protein.
AAC49582.1 U48691 Triticum aestivum
calmodulin TaCaM2-2. calcium-binding protein.
AAA85157.1 U20297 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85156.1 U20296 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA62351.1 U20295 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85155.1 U20294 Solanum tuberosum
calcium-binding protein. calmodulin.
CAA46150.1 X65016 Oryza sativa
calmodulin. cam.
AAD10246.1 AF030034 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
AAF73157.1 AF150059 Brassica napus
calmodulin. CaM1. involved in seed germination.
CAA54583.1 X77397 Zea mays
calmodulin. CaM2.
SEQ ID NO: 578
AAF01764.2 AF184277 Glycine max
homeodomain-leucine zipper protein 56. Hdl56. transcription factor.
BAA21017.1 D26578 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 761-940; leucine zipper at
nt 941-1048.
AAD37697.1 AF145728 Oryza sativa
homeodomain leucine zipper protein. Oshox4. transcription factor.
CAB67118.1 Y17306 Lycopersicon esculentum
homeodomain protein, h52.
AAF01765.1 AF184278 Glycine max
homeodomain-leucine zipper protein 57. Hdl57. transcription factor.
BAA05624.1 D26575 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 520-699; leucine zipper at nt 700-805.
BAA93466.1 AB028078 Physcomitrella patens
homeobox protein PpHB7. PpHB7. homeodomain-leucine zipper gene.
BAA93465.1 AB028077 Physcomitrella patens
homeobox protein PpHB6. PpHB6. homeodomain-leucine zipper gene.

Physcomitrella patens BAA93464.1 AB028076 homeobox protein PpHB5. PpHB5. homeodomain-leucine zipper gene. Daucus carota BAA05622.1 D26573 transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. BAA05625.1 D26576 Daucus carota transcriptiional regulator. DNA-binding protein. homeodomain at nt 300-479; leucine zipper at nt 480-587. Daucus carota BAA05623.1 D26574 trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. Physcomitrella patens BAA93461.1 AB028073 homeobox protein PpHB2. PpHB2. homeodomain-leucine zipper gene. BAA93467.1 AB028079 Physcomitrella patens homeobox protein PpHB8. PpHB8. homeodomain-leucine zipper gene. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA93460.1 AB028072 Physcomitrella patens homeobox protein PpHB1. PpHB1. homeodomain-leucine zipper gene. AAD37699.1 AF145730 Oryza sativa homeodomain leucine zipper protein. Oshox6. transcription factor. Craterostigma plantagineum CAA06717.1 AJ005820 transcription factor, homeodomain leucine zipper protein. hb-1. BAA93463.1 AB028075 Physcomitrella patens homeobox protein PpHB4. PpHB4. homeodomain-leucine zipper gene. CAA65456.2 X96681 Oryza sativa transcription factor. DNA-binding protein. Oshox1. homeodomain leucine zipper gene. AAF19980.1 AF211193 Oryza sativa homeodomain-leucine zipper transcription factor. Hox1. hox1. AAK31270.1 AC079890 Oryza sativa homeodomain leucine zipper protein hox1. OSJNBb0089A17.12. CAA06728.1 AJ005833 Craterostigma plantagineum transcription factor. homeodomain leucine zipper protein. hb-2. AAD37696.1 AF145727 Oryza sativa homeodomain leucine zipper protein. Oshox3. transcription factor. **SEO ID NO: 580** AAD32141.1 AF123503 Nicotiana tabacum Nt-gh3 deduced protein. CAA42636.1 X60033 Glycine max auxin-responsive GH3 product. GH3.

BAA96221.1 AP002094 Oryza sativa ESTs C19814(E10971), AU090481(E10971) correspond to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, sequence from clones T3F17, F11C10, F13A10; auxin-responsive GH3-like protein (AC006526). **SEQ ID NO: 581** AAD13632.1 AF059488 Lycopersicon esculentum expansin precursor. Exp4. AAF32410.1 AF230277 Triphysaria versicolor alpha-expansin 2. CAA04385.1 AJ000885 Brassica napus Cell wall extension in plants, Expansin. CAB46492.1 AJ243340 Lycopersicon esculentum expansin9. exp9. AAC63088.1 U82123 Lycopersicon esculentum expansin. LeEXP1. fruit ripening regulated expansin. CAA06271.2 AJ004997 Lycopersicon esculentum expansin18. exp18. AAF62182.1 AF247164 Oryza sativa alpha-expansin OsEXP7. cell wall loosening factor; expressed in internodes and leaves. AAF35900.1 AF230331 Zinnia elegans expansin. Expl. AAG13982.1 AF297521 Prunus avium expansin 1. Exp1. PruavExp1. AAC33529.1 U93167 Prunus armeniaca expansin. PA-Exp1. AAF21101.1 AF159563 Fragaria x ananassa expansin. Exp2. ripening regulated. AAF35901.1 AF230332 Zinnia elegans expansin 2. AAG13983.1 AF297522 Prunus avium expansin 2. Exp2. PruavExp2. AAC33530.1 AF038815 Prunus armeniaca expansin. Exp2. BAB19676.1 AB029083 Prunus persica expansin. PchExp1. AAB40637.1 U64893 Pinus taeda expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479. AAB37746.1 U30382 Cucumis sativus

expansin S1 precursor. Cs-EXP1. similar to pollen allergen Lol pI, Lolium perenne, Swiss-Prot Accession Number P14946; former gene name CuExS1; expansin-29 (Ex29) protein.

CAC19184.1 AJ291817 Cicer arietinum
expansin.
AAD47901.1 AF085330 Pinus taeda
expansin.
AAB40634.1 U64890 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession
Numbers U30477 and U30479.
AAF32409.1 AF230276 Triphysaria versicolor
alpha-expansin 3.
AAC39512.1 AF043284 Gossypium hirsutum
expansin. GhEX1. contains N-terminal signal peptide.
AAB40635.1 U64891 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.
AAC96081.1 AF049354 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP5. cell wall protein.
AAB38074.1 U30477 Oryza sativa
induces extension (creep) in plant cell walls. expansin Os-EXP2. Os-EXP2. former gene name RiExB.
AAG32921.1 AF184233 Lycopersicon esculentum
expansin. Exp10.
AAB81662.1 U85246 Oryza sativa
expansin. Os-EXP4.
AAD49956.1 AF167360 Rumex palustris
expansin. EXP1.
AAB40636.1 U64892 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.
AAF32411.1 AF230278 Triphysaria versicolor
alpha-expansin 1.
AAC96080.1 AF049353 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP4. cell wall protein.
AAF35902.1 AF230333 Zinnia elegans
expansin 3.
CAB43197.1 AJ239068 Lycopersicon esculentum
cell wall loosening enzyme. expansin2. exp2.
AAC64201.1 AF096776 Lycopersicon esculentum
expansin. LeEXP2.

AAF17570.1 AF202119 Marsilea quadrifolia
alpha-expansin. EXP1. Mq-EXP1.
AAD13633.1 AF059489 Lycopersicon esculentum
expansin precursor. Exp5.
AAF62181.1 AF247163 Oryza sativa
alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves.
AAF17571.1 AF202120 Regnellidium diphyllum
alpha-expansin. EXP1. Rd-EXP1.
AAF62180.1 AF247162 Oryza sativa
alpha-expansin OsEXP5. cell wall loosening factor; expressed in internodes, leaves,
coleoptiles, and roots.
CAC19183.1 AJ291816 Cicer arietinum
expansin.
CAC06433.1 AJ276007 Festuca pratensis
expansin. exp2.
BAB32732.1 AB049406 Eustoma grandiflorum
expansin. Eg Expansin.
AAG01875.1 AF291659 Striga asiatica
alpha-expansin 3. Exp3.
AAB37749.1 U30460 Cucumis sativus
expansin S2 precursor. Cs-EXP2. similar to pollen allergen Lol pI, Lolium perenne, Swiss-
Prot Accession Number P14946; former gene name CuExS2; expansin-30 (Ex30) protein.
AAC96077.1 AF049350 Nicotiana tabacum
involved in acid-growth response, alpha-expansin precursor. Nt-EXP1. cell wall protein.
AAC96079.1 AF049352 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.
AAG32920.1 AF184232 Lycopersicon esculentum
expansin. Exp8.
CAA69105.1 Y07782 Oryza sativa
expansin. RiExA.
AAC96078.1 AF049351 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP2. cell wall protein.
SEQ ID NO: 583
BAA85412.1 AP000615 Oryza sativa
ESTs AU065232(E60855),C23624(S1554), AU078241(E60855) correspond to a region of the
predicted gene.; similar to putative adenylate kinase. (AC005896). BAA01181.1 D10335 Oryza sativa
adenylate kinase-b. Adk-b.
BAA01180.1 D10334 Oryza sativa
adenylate kinase-a. Adk-a. BAA94761.1 AB041773 Oryza sativa
adenylate kinase. Adk-a.

AAB68604.1 U82330 Prunus armeniaca
adenylate kinase homolog.
AAF23372.1 AF187063 Oryza sativa
catalyzes the transfer of phosphate from ATP to UMP or CMP to form ADP and UDP or CDP. UMP/CMP kinase b. ura6.
AAF23371.1 AF187062 Oryza sativa catalyzes the transfer of phosphate from ATP to UMP or CMP to form ADP and UDP or
CDP. UMP/CMP kinase a. ura6.
AAD41679.1 AF086603 Ceratopteris richardii
adenylate kinase. ADK1.
BAA85443.1 AP000616 Oryza sativa
similar to UMP/CMP kinase (AF000147).
SEQ ID NO: 584
BAA87052.2 D88273 Hordeum vulgare
nicotianamine aminotransferase A, naat-A,
BAA87055.1 AB024006 Hordeum vulgare
nicotianamine aminotransferase, naat-A.
BAA87053.1 AB005788 Hordeum vulgare
nicotianamine aminotransferase B. naat-b. NAAT-B.
BAA87054.1 AB024006 Hordeum vulgare
nicotianamine aminotransferase, naat-B.
BAA77261.1 AB007405 Oryza sativa
alanine aminotransferase. AlaAT.
BAA77260.1 AB007404 Oryza sativa
alanine aminotransferase. AlaAT.
CAA49199.1 X69421 Panicum miliaceum
alanine aminotransferase. pAlaAT-2.
AAB01685.1 U31975 Chlamydomonas reinhardtii
catalyzes the transfer of -NH2 from ala to 2-oxoglutarate. alanine aminotransferase. The
translation start site has not been experimentally tested, but a 55 kDa product can be detected
in Western blot.
AAC62456.1 AF055898 Zea mays
alanine aminotransferase. alt. AlaAT.
CAA81231.1 Z26322 Hordeum vulgare
alanine aminotransferase.
SEQ ID NO: 586
AAB94589.1 AF022460 Glycine max
CYP83D1p. CYP83D1. cytochrome P450 monooxygenase.
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
AAA19701.1 L24438 Thlaspi arvense
cytochrome P450.

BAB40324.1 AB037245 Asparagus officinalis
cytochrome P450. ASPI-2.
AAC39318.1 AF029858 Sorghum bicolor
second multifunctional cytochrome P450 in the biosynthetic pathway of the cyanogenic
glucoside dhurrin. Catalyzes the conversion of p-hydroxyphenylacetaldoxime to p-
hydroxymandelonitrile. cytochrome P450 CYP71E1. CYP71E1. No EST#s identified.
BAB40323.1 AB037244 Asparagus officinalis
cytochrome P450. ASPI-1.
CAA71517.1 Y10493 Glycine max
putative cytochrome P450.
AAB61965.1 U48435 Solanum chacoense
putative cytochrome P450.
CAA70575.1 Y09423 Nepeta racemosa
cytochrome P450. CYP71A5.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.
AAB61964.1 U48434 Solanum chacoense
putative cytochrome P450.
AAD47832.1 AF166332 Nicotiana tabacum
cytochrome P450.
AAB94588.1 AF022459 Glycine max
CYP71D10p. CYP71D10. cytochrome P450 monooxygenase.
AAF27282.1 AF122821 Capsicum annuum
cytochrome P450. PepCYP.
CAA50312.1 X70981 Solanum melongena
P450 hydroxylase. CYPEG2.
CAA83941.1 Z33875 Mentha x piperita
cytochrome P-450 oxidase.
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
CAA70576.1 Y09424 Nepeta racemosa
cytochrome P450. CYP71A6.
AAD44151.1 AF124816 Mentha x piperita
cytochrome p450 isoform PM17.
BAA03635.1 D14990 Solanum melongena
Cytochrome P-450EG4.
CAA50645.1 X71654 Solanum melongena
P450 hydroxylase.
AAB69644.1 AF000403 Lotus japonicus
putative cytochrome P450. LiNP450.
AAD37433.1 AF150881 Lycopersicon esculentum x Lycopersicon peruvianum
catalyzes the hydroxylation of ferulic acid to 5-hydroxyferulic acid, ferulate-5-hydroxylase.
CYP84. cytochrome P450-dependent monooxygenase; F5H; FAH1.

CAA65580.1 X96784 Nicotiana tabacum
cytochrome P450. hsr515.
AAD44152.1 AF124817 Mentha x piperita
cytochrome p450 isoform PM2.
CAA64635.1 X95342 Nicotiana tabacum
cytochrome P450. hsr515. hypersensitivity-related gene.
AAG14962.1 AF214008 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H2.
AAG14961.1 AF214007 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H1.
CAB56503.1 AJ238612 Catharanthus roseus
cytochrome P450.
AAG14963.1 AF214009 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H3.
AAK38088.1 AF321864 Lolium rigidum
putative cytochrome P450.
AAD44150.1 AF124815 Mentha spicata
cytochrome p450.
AAK38084.1 AF321860 Lolium rigidum
putative cytochrome P450.
AAD56282.1 AF155332 Petunia x hybrida
flavonoid 3'-hydroxylase. Ht1. cytochrome P450; CYP75B2.
AAK38087.1 AF321863 Lolium rigidum
putative cytochrome P450.
AAK38083.1 AF321859 Lolium rigidum
putative cytochrome P450.
AAB94584.1 AF022157 Glycine max
capable of catalyzing the metabolism of phenylurea herbicides. CYP71A10. CYP71A10.
cytochrome P450 monooxygenase.
CAA71514.1 Y10490 Glycine max
putative cytochrome P450.
BAA12159.1 D83968 Glycine max
Cytochrome P-450 (CYP93A1).
BAB39252.1 AP002968 Oryza sativa
putative cytochrome P450. P0416G11.1.
CAA50155.1 X70824 Solanum melongena
flavonoid hydroxylase (P450). CYP75.
SEQ ID NO: 587
CAA60120.1 X86222 Pisum sativum
heat shock protein. hsp22.
AAF37726.1 AF237957 Euphorbia esula
LMW heat shock protein. putative 22 kDa mitochondrial heat shock protein.

BAA32547.1 AB017134 Lycopersicon esculentum
mitochondrial small heat shock protein. LEMTSHP.
CAA33388.1 X15333 Chenopodium rubrum
heat shock protein (AA 1-204).
AAB03096.1 U21722 Glycine max
Hsp23.9. Gmhsp23.9. low molecular weight heat shock protein.
AAC12279.1 AF035460 Zea mays
low molecular weight heat shock protein precursor. hsp22.
AAD03604.1 AF104107 Triticum aestivum
small heat shock protein Hsp23.5. mRNA not present, or only at very low levels, prior to heat
stress; mRNA abundant after two hours at 40C.
AAB01557.1 LA7741 Picea glauca
mitochondria-localized low molecular weight heat shock protein 23.5. EMB22, SMW
HSP23.5.
AAD03605.1 AF104108 Triticum aestivum
small heat shock protein Hsp23.6.
CAA38037.1 X54103 Plastid Petunia x hybrida
heat shock protein. hsp21.
AAF19022.1 AF197942 Funaria hygrometrica
chloroplast-localized small heat shock protein 22. CPsHSP22.
AAB49626.1 U59917 Lycopersicon esculentum
chromoplast-associated hsp20. pTOM111. small molecular weight heat shock protein.
AAB07023.1 U66300 Chloroplast Lycopersicon esculentum
heat shock protein. HSP21.
BAA29064.1 D88584 Nicotiana tabacum
heat shock protein 26 (Type I). Nthsp26a. plastid-localized small heat shock protein.
AAF19021.1 AF197941 Funaria hygrometrica
chloroplast-localized small heat shock protein. CPsHSP21. CPsHS 21.
BAA78385.1 AB020973 Oryza sativa
heat shock protein 26. Oshsp26. chloroplast-localized small heat shock protein.
CAA41219.1 X58280 Triticum aestivum
heat shock protein 26.6. Tahsp26.6.
AAC96315.1 AF097657 Triticum aestivum
heat shock protein HSP26. hsp26.6. similar to the Triticum aestivum hsp26.6G2 protein
encoded by the sequence presented in GenBank Accession Number L41503; 26 kDa protein.
AAC96316.1 AF097658 Triticum aestivum
heat shock protein HSP26. hsp26.6. 26 kDa protein.
AAC96314.1 AF097656 Triticum aestivum
heat shock protein HSP26. hsp26.6. 26 kDa protein.
CAA47745.1 X67328 Triticum aestivum
heat shock protein 26.6B. hsp 26.6B.
AAC96317.1 AF097659 Triticum aestivum
heat shock protein HSP26. hsp26.6. 26 kDa protein.

AAA33477.1 L28712 Zea mays
heat shock protein 26. HSP26. plastid-localized low molecular weight hsp.
BAA29066.1 AB006043 Nicotiana sylvestris
heat shock protein 26. hsp26. plastid-localized small heat shock protein.
BAA29067.1 AB006044 Nicotiana tomentosiformis
heat shock protein 26. hsp26. plastid-localized small heat shock protein.
BAA29065.1 AB006041 Nicotiana tabacum
heat shock protein 26 (Type I). Nthsp26a. plastid-localized small heat shock protein 26.
AAC01570.1 AF019144 Agrostis stolonifera var. palustris
low molecular weight heat shock protein.
AAD30452.1 AF123255 Lycopersicon esculentum
17.7 kD class I small heat shock protein. HSP17.7.
CAA39603.1 X56138 Lycopersicon esculentum
small heat shock protein (class I).
AAD30453.1 AF123256 Lycopersicon esculentum
17.8 kD class I small heat shock protein. HSP17.8.
AAD30454.1 AF123257 Lycopersicon esculentum
17.6 kD class I small heat shock protein. HSP17.6.
AAD49336.1 AF166277 Nicotiana tabacum
low molecular weight heat-shock protein. LHS-1. TLHS-1.
AAF34133.1 AF161179 Malus x domestica
low molecular weight heat shock protein. Hsp1.
AAC39360.1 U63631 Fragaria x ananassa
LMW heat shock protein.
AAA61632.1 U08601 Papaver somniferum
low molecular weight heat-shock protein.
CAA08908.1 AJ009880 Castanea sativa
molecular chaperone. cytosolic class I small heat-shock protein HSP17.5. hsp17.5.
AAA33975.1 M11395 Glycine max
small heat shock protein.
CAA63570.1 X92983 Pseudotsuga menziesii
low molecular weight heat-shock protein.
AAB03893.1 M11318 Glycine max
17.5 kd heat shock protein Gmhsp17.6L.
CAA25578.1 X01104 Glycine max
heat shock protein 6871 (aa 1-153).
AAB72109.1 AF022217 Brassica rapa
low molecular weight heat-shock protein. BcHSP17.6. 17.6 kDa; cytosolic class I.
CAA46641.1 X65725 Zea mays
heat shock protein 17.2. Zmhsp 17.2. Class I low molecular weight heat shock protein.
CAB08441.1 Z95153 Helianthus annuus
17.6 kD class I small heat-shock protein HSP17.6. Ha hsp17.6.

AAA33974.1 M11317 Glycine max
17.6 kd heat shock protein Gmhsp17.6L.
SEQ ID NO: 588
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
AAA19701.1 L24438 Thlaspi arvense
cytochrome P450.
AAC39318.1 AF029858 Sorghum bicolor
second multifunctional cytochrome P450 in the biosynthetic pathway of the cyanogenic
glucoside dhurrin. Catalyzes the conversion of p-hydroxyphenylacetaldoxime to p-
hydroxymandelonitrile. cytochrome P450 CYP71E1. CYP71E1. No EST#s identified.
BAB40323.1 AB037244 Asparagus officinalis
cytochrome P450. ASPI-1.
BAB40324.1 AB037245 Asparagus officinalis
cytochrome P450. ASPI-2.
AAB94589.1 AF022460 Glycine max
CYP83D1p. CYP83D1. cytochrome P450 monooxygenase.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.
CAA70575.1 Y09423 Nepeta racemosa
cytochrome P450. CYP71A5.
AAB94584.1 AF022157 Glycine max
capable of catalyzing the metabolism of phenylurea herbicides. CYP71A10. CYP71A10.
cytochrome P450 monooxygenase.
AAB61965.1 U48435 Solanum chacoense
putative cytochrome P450.
AAF27282.1 AF122821 Capsicum annuum
cytochrome P450. PepCYP.
CAB56503.1 AJ238612 Catharanthus roseus
cytochrome P450.
AAD47832.1 AF166332 Nicotiana tabacum
cytochrome P450.
AAB94588.1 AF022459 Glycine max
CYP71D10p. CYP71D10. cytochrome P450 monooxygenase.
AAB61964.1 U48434 Solanum chacoense
putative cytochrome P450.
CAA71517.1 Y10493 Glycine max
putative cytochrome P450.
CAA50645.1 X71654 Solanum melongena
P450 hydroxylase.
BAA03635.1 D14990 Solanum melongena
Cytochrome P-450EG4.

GA 50210 1 3/20001 0 1
CAA50312.1 X70981 Solanum melongena
P450 hydroxylase. CYPEG2.
CAA71514.1 Y10490 Glycine max
putative cytochrome P450.
AAB69644.1 AF000403 Lotus japonicus
putative cytochrome P450. LjNP450.
CAA70576.1 Y09424 Nepeta racemosa
cytochrome P450. CYP71A6.
AAD44151.1 AF124816 Mentha x piperita
cytochrome p450 isoform PM17.
AAK38084.1 AF321860 Lolium rigidum
putative cytochrome P450.
CAA83941.1 Z33875 Mentha x piperita
cytochrome P-450 oxidase.
AAK38083.1 AF321859 Lolium rigidum
putative cytochrome P450.
AAD44152.1 AF124817 Mentha x piperita
cytochrome p450 isoform PM2.
BAB39252.1 AP002968 Oryza sativa
putative cytochrome P450. P0416G11.1.
AAD44150.1 AF124815 Mentha spicata
cytochrome p450.
AAK38087.1 AF321863 Lolium rigidum
putative cytochrome P450.
AAK38082.1 AF321858 Lolium rigidum
putative cytochrome P450.
CAA57423.1 X81829 Zea mays
cytochrome P450. CYP71C2. family CYP71, subfamily CYP71C.
CAA72208.1 Y11404 Zea mays
cytochrome p450. cyp71c2.
CAC27827.1 AJ295719 Catharanthus roseus
geraniol hydroxylase. cytochrome P450. cyp71.
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
AAK38088.1 AF321864 Lolium rigidum
putative cytochrome P450.
AAG14963.1 AF214009 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H3.
CAA57424.2 X81830 Zea mays
cytochrome P450. CYP71C3. family CYP71, subfamily CYP71C.
CAA72207.1 Y11403 Zea mays
cytochrome p450. cyp71c3.

AAG14962.1 AF214008 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H2.
AAG14961.1 AF214007 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H1.
BAA12159.1 D83968 Glycine max
Cytochrome P-450 (CYP93A1).
BAB40322.1 AB036772 Triticum aestivum
cytochrome P450. N-1.
. SEQ ID NO: 593
BAA09645.1 D63331 Nicotiana tabacum
Indole-3-acetonitrile hydrolysis. nitrilase. TNIT4. Indole-3-acetonitrile hydolysis,indole-3-
acetic acid biosynthesis.
BAA11770.1 D83078 Nicotiana tabacum
indole-3-acetonitrile hydolysis. nitrilase. TNIT4B. indole-3-acetonitrile hydlysis, indole-3-
aceticacid biosynthesis.
BAA77679.1 AB027054 Oryza sativa
nitrilase-like protein. ONIT4.
SEQ ID NO: 595
AAG01147.1 AF283816 Pinus taeda
calreticulin. calcium-binding protein.
CAA05161.1 AJ002057 Beta vulgaris
calreticulin.
AAB71419.1 U74630 Ricinus communis
calreticulin.
AAB71420.1 U74631 Ricinus communis
endoplasmic reticulum calcium binding protein. calreticulin.
CAA95999.1 Z71395 Nicotiana plumbaginifolia
ER Ca2+ binding protein. calreticulin. cal1.
AAD17490.1 AF052040 Berberis stolonifera
possible molecular chaperon. calreticulin. calcium binding protein of the endoplasmic
reticulum.
AAD32207.1 AF134733 Prunus armeniaca
calcium-binding protein calreticulin.
CAA61939.1 X89813 Zea mays
Calreticulin precursor.
AAA32948.1 L27348 Hordeum vulgare
calcium binding protein. calreticulin. CRH1.
AAA32949.1 L27349 Hordeum vulgare
calcium binding protein. calreticulin. CRH2.
AAF01470.1 AF190454 Zea mays
calreticulin. CRT. calcium binding protien.
CAB54526.1 AJ000765 Chlamydomonas reinhardtii
calreticulin.

AAB70919.1 AF019376 Brassica napus
calreticulin. Crt1. calcium binding protein; similar to A. thaliana calreticulin encoded by
GenBank Accession Number U66343.
BAA85118.1 AB018243 Solanum melongena
calreticulin-like protein. EEF22.
CAA54975.1 X78057 Zea mays
calreticulin. CRH.
CAA57914.1 X82578 Parthenium argentatum
calreticulin. 111R.
AAK15502.1 AF325720 Pennisetum ciliare
calreticulin-like protein. Pcp4.
BAA77025.1 AB026251 Lithospermum erythrorhizon
calreticulin.
SEQ ID NO: 596
BAA12206.1 D84061 Spinacia oleracea
phosphoserine aminotransferase.
SEQ ID NO: 597
AAF73124.1 AF148534 Lycopersicon esculentum
whitefly-induced gp91-phox. Wfi1. mammalian gp91-phox homolog; respiratory burst
oxidase homolog; putative NADPH oxidase; similar to neutrophil NADPH oxidase gp91-
phox subunit; similar to Arabidopsis thaliana Rboh and Oryza sativa Rboh; similar to
Caenorhabditis elegans PhoX-like proteins.
AAF73104.1 AF147783 Lycopersicon esculentum
whitefly-induced gp91-phox. Wfi1. mammalian gp91-phox homolog; respiratory burst oxidase homolog; putative NADPH oxidase; similar to neutrophil NADPH oxidase gp1-phox
subunit; similar to Arabidopsis thaliana Rboh and Oryza sativa Rboh.
AAD25300.1 AF088276 Lycopersicon esculentum
NADPH oxidase. RBOH1. gp91; phox homolog.
AAB87790.1 AF015302 Oryza sativa
RbohAOsp. putative NADPH oxidase; intrinsic plasma membrane protein; similar to the
neutrophil NADPH oxidase gp91phox subunit; contains RanGAP1 domain; similar to O.
sativa NAD(P)H oxidase sequence with GenBank Accession Number X93301.
CAA63704.1 X93301 Oryza sativa
NAD(P)H oxidase. rbohA.
AAD24966.1 AF109150 Lycopersicon esculentum
NADPH oxidase. gp91; phox homolog.
AAD25225.1 AF088279 Potamogeton crispus
NADPH oxidase. RBOH1. gp91; phox homolog.
SEQ ID NO: 599
CAC21424.1 AJ278332 Lycopersicon esculentum
involved in octadecanoid biosynthesis. 12-oxophytodienoate reductase 3. opr3.
BAB40340.1 AB044940 Pisum sativum
12-oxophytodienoic acid 10, 11-reductase. OPDAR.

CAB43506.1 AJ242551 Lycopersicon esculentum
involved in jasmonic acid biosynthesis. 12-oxophytodienoate reductase. opr.
CAC21423.1 AJ278331 Lycopersicon esculentum
involved in octadecanoid biosynthesis. putative 12-oxophytodienoate reductase 2. opr2.
CAB97122.1 AJ297421 Daucus carota
oxidoreductase. putative 12-oxophytodienoate reductase. opr2.
SEQ ID NO: 602
AAB37246.1 U58971 Nicotiana tabacum
calmodulin-binding protein. TCB60.
SEQ ID NO: 603
AAK15006.1 AF233433 Brassica napus
arginase. similar to Arabidopsis thaliana and Glycine max arginase.
AAK07744.1 AF130440 Pinus taeda
converts L-arginine to L-ornithine and urea. arginase. ARS20. L-arginine amidinohydrolase.
AAC04613.1 AF035671 Glycine max
hydrolysis of L-Arg to L-Orn and urea. arginase. pAG1. L-Arg amidinohydrolase.
SEQ ID NO: 605
CAA81210.1 Z26251 Helianthus tuberosus
Catalyzes the reduction of cytochrome P450 in microsomes. NADPH-ferrihemoprotein
reductase.
AAB02721.1 U58629 Helianthus tuberosus
NADPH-ferrihemoprotein oxidoreductase. HTR2. NADPH-cytochrome P450 reductase
isoform.
CAC27143.1 AJ132538 Picea abies
NADPH-cytochrome P450 reductase.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii .
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1).
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308).
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase. AAA21758.1 U14956 Vicia faba
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase. AAA21758.1 U14956 Vicia faba photosynthetic electron transport. ferredoxin NADP+ reductase precursor. fnr.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase. AAA21758.1 U14956 Vicia faba photosynthetic electron transport. ferredoxin NADP+ reductase precursor. fnr. AAA34029.1 M86349 Spinacia oleracea
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase. AAA21758.1 U14956 Vicia faba photosynthetic electron transport. ferredoxin NADP+ reductase precursor. fnr. AAA34029.1 M86349 Spinacia oleracea ferredoxin-NADP oxidoreductase. precursor protein.
NADPH-cytochrome P450 reductase. AAA79131.1 U10545 Chlamydomonas reinhardtii ferredoxin-NADP+ reductase. fnr. CAA55406.1 X78851 Chlamydomonas reinhardtii ferredoxin NADP reductase. AAB40978.1 U22328 Volvox carteri ferredoxin-NADP+ reductase. fnr. FNR. AAA33029.1 M25528 Mesembryanthemum crystallinum ferredoxin-NADP+ reductase precursor (fnrA; EC 1.6.7.1). CAA30978.1 X12446 Pisum sativum ferredoxin-NADH+ reductase preprotein (AA -52 to 308). BAA13417.1 D87547 Oryza sativa precursor ferredoxin-NADP+ oxidoreductase. AAA21758.1 U14956 Vicia faba photosynthetic electron transport. ferredoxin NADP+ reductase precursor. fnr. AAA34029.1 M86349 Spinacia oleracea

CAA74359.1 Y14032 Nicotiana tabacum
ferredoxinNADP(+) reductase. fnr.
BAA88236.1 AB035644 Zea mays
NADP+ oxidoreductase. ferredoxin. L-FNRI.
BAA88237.1 AB035645 Zea mays
NADP+ oxidoreductase. ferredoxin. L-FNRII.
BAA20365.1 AB004307 Nicotiana tabacum
ferredoxin-NADP oxidoreductase.
BAA07479.1 D38445 Oryza sativa
root ferredoxin-NADP+ reductase. root FNR. nitrate assimilation pathway.
BAA02248.1 D12815 Oryza sativa
ferredoxin-NADP+ reductase enzyme.
BAA04232.1 D17410 Oryza sativa
ferredoxin-NADP+ reductase.
BAA90642.1 AP001129 Oryza sativa
ESTs AU078647(E1557), C72400(E1557) correspond to a region of the predicted gene.;
Similar to Oryza sativa, ferredoxin-NADP+ reductase. (D17790).
BAA85425.1 AP000616 Oryza sativa
ESTs AU078647(E1557),C72400(E1557) correspond to a region of the predicted gene.;
similar to ferredoxin-NADP+ reductase (D17790).
BAA04616.1 D17790 Oryza sativa
ferredoxin-NADP+ reductase.
AAB40034.1 U10418 Zea mays
ferredoxin-NADP reductase precursor.
CAA67796.1 X99419 Pisum sativum
ferrodoxin NADP oxidoreductase.
AAK09367.1 AF321525 Pisum sativum
ferredoxin-NADP+ reductase. FNR.
AAK09370.1 AF321528 Pisum sativum
ferredoxin-NADP+ reductase. FNR.
AAK09369.1 AF321527 Pisum sativum
ferredoxin-NADP+ reductase. FNR.
AAK09368.1 AF321526 Pisum sativum
ferredoxin-NADP+ reductase. FNR.
SEQ ID NO: 606
BAA82107.1 AB022693 Nicotiana tabacum
transcription factor. NtWRKY1.
AAC31956.1 AF080595 Pimpinella brachycarpa
zinc finger protein. ZFP1. WRKY1.
AAC49527.1 U48831 Petroselinum crispum
WRKY1. contains two WRKY domains; WRKY-type DNA-binding protein; sequence-
specific DNA-binding protein.

AAD55974.1 AF121353 Petroselinum crispum
zinc-finger type transcription factor WRKY1. WRKY1.
BAA77383.1 AB020590 Nicotiana tabacum
transcription factor NtWRKY2.
AAD32677.1 AF140554 Avena sativa
DNA-binding protein WRKY1. wrky1. putative transcription factor.
CAA88326.1 Z48429 Avena fatua
binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein.
BAA86031.1 AB026890 Nicotiana tabacum .
transcription factor NtWRKY4.
AAD16139.1 AF096299 Nicotiana tabacum
DNA-binding protein 2. WRKY2. transcription factor.
AAC37515.1 L44134 Cucumis sativus
SPF1-like DNA-binding protein.
AAF23898.1 AF193802 Oryza sativa
zinc finger transcription factor WRKY1.
AAK16171.1 AC079887 Oryza sativa
putative DNA-binding protein. OSJNBa0040E01.10.
AAC49529.1 U58540 Petroselinum crispum
WRKY2. Contains two WRKY domains; WRKY-type DNA-binding protein.
AAD16138.1 AF096298 Nicotiana tabacum
DNA-binding protein 1. WRKY1. transcription factor.
BAB19096.1 AP002839 Oryza sativa
putative DNA-binding protein homolog. P0688A04.2.
BAB19075.1 AP002744 Oryza sativa
putative DNA-binding protein homolog. P0006C01.17.
AAK16170.1 AC079887 Oryza sativa
putative DNA binding protein. OSJNBa0040E01.4.
CAB97004.1 AJ278507 Solanum tuberosum
putative transcription factor. WRKY DNA binding protein. WRKY1.
BAB18313.1 AP002865 Oryza sativa
putative WRKY DNA binding protein. P0034C11.1. contains EST C26525(C12525).
AAD38283.1 AC007789 Oryza sativa
putative WRKY DNA binding protein. OSJNBa0049B20.9.
BAB40073.1 AP003074 Oryza sativa
putative WRKY DNA binding protein. OSJNBa0004G10.20. contains EST C26525(C12525).
AAC49528.1 U56834 Petroselinum crispum
DNA-binding. WRKY3. WRKY-type DNA-binding protein.
BAB16432.1 AB041520 Nicotiana tabacum
WRKY transcription factor Nt-SubD48. Nt-SubD48.
BAA77358.1 AB020023 Nicotiana tabacum
WRKY domain Zn-finger type DNA-binding protein. DNA-binding protein NtWRKY3.

AAD32676.1 AF140553 Avena sativa DNA-binding protein WRKY3. wrky3. putative transcription factor. Avena fatua CAA88331.1 Z48431 binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein. Petroselinum crispum AAG35658.1 AF204925 transcription factor WRKY4. WRKY4. binds to W box (TTGACC) elements. AAG46150.1 AC018727 Oryza sativa putative DNA-binding protein. OSJNBa0056G17.18. AAD27591.1 AF121354 Petroselinum crispum binds sequence specifically to W Boxes (TTGACC), transcription factor, WRKY3, sequence specific DNA-binding protein. AAG35659.1 AF204926 Petroselinum crispum transcription factor WRKY5. WRKY5. binds to W box (TTGACC) elements. CAB66338.1 AJ279697 Betula pendula wrky-type DNA binding protein. wrky. AAF61864.1 AF193771 Nicotiana tabacum DNA-binding protein 4. WRKY4. transcription factor. AAF61863.1 AF193770 Nicotiana tabacum DNA-binding protein 3. WRKY3. transcription factor. **SEQ ID NO: 608** BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). BAB19337.1 AP003044 Oryza sativa putative protein kinase. P0038C05.10. contains ESTs AU056335(S20481),AU056336(S20481). BAA92836.1 AB032473 Brassica oleracea S18 S-locus receptor kinase. SRK18. AAB61708.1 U93048 Daucus carota somatic embryogenesis receptor-like kinase, SERK. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. AAK00425,1 AC069324 Oryza sativa Putative protein kinase, OSJNBa0071K19.11. BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808), AU056702(S20808). AAD21872.1 AF078082 Phaseolus vulgaris receptor-like protein kinase homolog RK20-1.

CAB41878.1 Y18259 Brassica oleracea
SRK5 protein, SRK5. receptor-like kinase.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
AAG59657.1 AC084319 Oryza sativa
putative protein kinase. OSJNBa0004B24.20.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs
C22608(R3192),D25110(R3192).
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
AAF66615.1 AF142596 Nicotiana tabacum
LRR receptor-like protein kinase.
AAF76314.1 AF220603 Lycopersicon esculentum
Fen kinase. Lescfen.
AAK11568.1 AF318492 Lycopersicon hirsutum
Pto-like protein kinase B. LhirPtoB.
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
AAB47424.1 U59317 Lycopersicon pimpinellifolium
serine/threonine protein kinase Fen. Fen. fenthion sensitivity gene from tomato.
AAB47422.1 U59318 Lycopersicon esculentum
serine/threonine protein kinase Fen. fen. allele of Fen, fenthion sensitivity gene from tomato.

AAC48932.1 U13923 Lycopersicon pimpinellifolium Fen. putative serine/threonine protein kinase; similar to product encoded by Lycopersicon pimpinellifolium Pto gene, GenBank Accession Number U02271; Fen is a member of the Pto gene family. AAF76307.1 AF220602 Lycopersicon pimpinellifolium Fen kinase. BAA07576.1 D38563 Brassica rapa receptor protein kinase SRK8. AAG16628.1 AY007545 Brassica napus protein serine/threonine kinase BNK1. CAA97692.1 Z73295 Catharanthus roseus receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser. Mechanism: autophosphorylation in cis. CAA79355.1 Z18921 Brassica oleracea S-receptor kinase-like protein. AAB93834.1 U82481 Zea mays KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase. BAA92837.1 AB032474 Brassica oleracea S60 S-locus receptor kinase. SRK60. AAA33915.1 L27821 Oryza sativa receptor type serine/threonine kinase. protein kinase. **SEQ ID NO: 610** BAB17348.1 AP002747 Oryza sativa putative receptor kinase. P0698G03.32. BAB17345.1 AP002747 Oryza sativa putative receptor kinase. P0698G03.29. BAB17126.1 AP002867 Oryza sativa putative receptor kinase. P0463F06.16. BAB39451.1 AP003338 Oryza sativa putative receptor kinase. OJ1212_B09.24. BAB17342.1 AP002747 Oryza sativa putative receptor kinase. P0698G03.26. AAC27489.1 AF077130 Oryza sativa receptor-like protein kinase. AAF78018.1 AF238474 Oryza sativa receptor-like kinase. RLG16. protein kinase. AAC02535.1 AF044260 Oryza sativa receptor serine/threonine kinase. protein kinase. BAB39435.1 AP003338 Oryza sativa putative receptor kinase. OJ1212_B09.2. AAD46917.1 AF164021 Oryza sativa receptor kinase.

BAB39438.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.7.
BAB17339.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.23.
AAC49629.1 U51330 Triticum aestivum
rust resistance kinase Lr10. LRK10.
BAB17321.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.1.
BAB17129.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.20.
AAF68398.1 AF237568 Oryza sativa
receptor-like protein kinase. RLG2.
BAB17331.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.12.
BAB17139.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.31.
AAC01746.1 AF044489 Oryza sativa
receptor-like protein kinase. drpk1.
AAF78016.1 AF238472 Oryza sativa
receptor-like kinase. RLG15. protein kinase.
BAB39441.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.11.
BAB17116.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.3.
AAF78044.1 AF248493 Oryza sativa
receptor-like kinase. RLG18. protein kinase.
AAD44029.1 AF085164 Hordeum vulgare
receptor-like kinase LRK10.
BAB17332.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.13. contains ESTs D47575(S13157),AU032665(S13157).
BAB17347.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.31. contains ESTs D47575(S13157),AU032665(S13157).
BAB17344.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.28. contains ESTs D47575(S13157), AU032665(S13157).
BAB17337.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.21. contains ESTs D47575(S13157), AU032665(S13157).
BAB17335.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.17. contains ESTs D47575(S13157),AU032665(S13157).
BAB17115.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.2.
BAB39440.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.10.
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BAB39437.1 AP003338 Oryza sativa
receptor-like kinase. OJ1212_B09.6.
AAF78019.1 AF238475 Oryza sativa
receptor-like kinase. RLG17. protein kinase.
BAB17127.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.17.
AAD46916.1 AF164020 Oryza sativa
receptor kinase.
AAF78021.1 AF238477 Oryza sativa
receptor-like kinase. RLG5. protein kinase.
AAD46417.1 AF100767 Oryza sativa
receptor-like kinase. 8ARK3. similar to wheat ARK1AS.
AAD46415.1 AF100765 Oryza sativa
receptor-like kinase. 8ARK1. similar to wheat ARK1AS.
BAB17128.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.18.
AAF68400.1 AF237570 Oryza sativa
receptor-like protein kinase. RLG3.
BAB17323.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.3.
BAB17131.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.22.
AAF68397.1 AF237567 Oryza sativa
receptor-like protein kinase. RLG1.
AAF78015.1 AF238471 Oryza sativa
receptor-like kinase. RLG10. protein kinase.
AAD43962.1 U78762 Triticum aestivum
receptor-like kinase ARK1AS. ARK1AS.
SEQ ID NO: 611
BAA78764.1 AB023482 Oryza sativa
ESTs C98382(C2985),D22444(C11129) correspond to a region of the predicted gene.; Similar
to Arabidopsis thaliana APK1 gene for protein tyrosine-serine-threonine kinase.(D12522).
AAK11674.1 AF339747 Lophopyrum elongatum
protein kinase. ESI47.
AAF43496.1 AF131222 Lophopyrum elongatum
protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and
ABA treatment.
AAG16628.1 AY007545 Brassica napus
protein serine/threonine kinase BNK1.
BAA94509.1 AB041503 Populus nigra
protein kinase 1. PnPK1.
BAA94510.1 AB041504 Populus nigra
protein kinase 2. PnPK2.

BAB07999.1 AP002525 Oryza sativa putative protein kinase. P0462H08.22. contains EST C22619(S11214). BAB03429.1 AP002817 Oryza sativa EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587). BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). BAB39409.1 AP002901 Oryza sativa putative protein kinase. P0456F08.9. contains EST C23560(R0290). Oryza sativa CAB51834.1 00069 11332.5. contains eukaryotic protein kinase domain PF. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808), AU056702(S20808). AAK11567.1 AF318491 Lycopersicon hirsutum Pto-like protein kinase F. LhirPtoF. BAA90808.1 AP001168 Oryza sativa Similar to putative receptor-like protein kinase (AL035679). Brassica napus AAK21965.1 AY028699 receptor protein kinase PERK1. Lycopersicon pimpinellifolium AAC48932.1 U13923 Fen. putative serine/threonine protein kinase; similar to product encoded by Lycopersicon pimpinellifolium Pto gene, GenBank Accession Number U02271; Fen is a member of the Pto gene family. AAB47424.1 U59317 Lycopersicon pimpinellifolium serine/threonine protein kinase Fen. Fen. fenthion sensitivity gene from tomato. AAF76307.1 AF220602 Lycopersicon pimpinellifolium Fen kinase. AAK11566.1 AF318490 Lycopersicon hirsutum Pto-like protein kinase E. LhirPtoE. confers resistance to bacterial speck disease. AAG03090.1 AC073405 Oryza sativa Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). AAF76314.1 AF220603 Lycopersicon esculentum

Fen kinase. Lescfen.

AAB47421.1 U59316 Lycopersicon esculentum
serine/threonine protein kinase Pto. pto. allele of Pto bacterial speck disease resistance gene in tomato.
AAF76313.1 AF220603 Lycopersicon esculentum
Pto kinase. LescPth5.
AAB47422.1 U59318 Lycopersicon esculentum
serine/threonine protein kinase Fen. fen. allele of Fen, fenthion sensitivity gene from tomato.
AAG59657.1 AC084319 Oryza sativa
putative protein kinase. OSJNBa0004B24.20.
AAF76306.1 AF220602 Lycopersicon pimpinellifolium
Pto kinase.
AAB47423.1 U59315 Lycopersicon pimpinellifolium
serine/threonine protein kinase Pto. Pto. bacterial speck disease resistance in tomato; disease
resistance gene.
AAC48914.1 U02271 Lycopersicon pimpinellifolium
protein kinase.
AAK11568.1 AF318492 Lycopersicon hirsutum
Pto-like protein kinase B. LhirPtoB.
BAB21241.1 AP002953 Oryza sativa
Putative Pto kinase interactor 1. P0426D06.21. contains ESTs
AU108280(E0721),D48017(S13927).
AAC27894.1 AF023164 Zea mays
leucine-rich repeat transmembrane protein kinase 1. ltk1.
AAF91337.1 AF249318 Glycine max
Pti1 kinase-like protein. Pti1b. protein kinase.
AAC61805.1 U28007 Lycopersicon esculentum
serine/threonine protein kinase. Pto kinase interactor 1. Pti1. Pti1 kinase.
CAA97692.1 Z73295 Catharanthus roseus
receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser.
Mechanism: autophosphorylation in cis.
AAF91336.1 AF249317 Glycine max
Ptil kinase-like protein. Ptila. protein kinase.
AAF66615.1 AF142596 Nicotiana tabacum
LRR receptor-like protein kinase.
AAB61708.1 U93048 Daucus carota
somatic embryogenesis receptor-like kinase. SERK.
AAK11569.1 AF318493 Lycopersicon hirsutum
Pto-like protein kinase D. LhirPtoD.
BAA92221.1 AP001278 Oryza sativa
Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative
protein kinase. (AC004218).
BAA87852.1 AP000816 Oryza sativa
Similar to putative Ser/Thr protein kinase. (AC004218).

AAC27895.1 AF023165 Zea mays
leucine-rich repeat transmembrane protein kinase 2. ltk2.
SEQ ID NO: 612
CAA54613.1 X77463 Manihot esculenta
UTP-glucose glucosyltransferase. CGT6.
CAA54609.1 X77459 Manihot esculenta
UTP-glucose glucosyltransferase. CGT1.
CAA54611.1 X77461 Manihot esculenta
UTP-glucose glucosyltransferase. CGT2.
CAA54612.1 X77462 Manihot esculenta
UTP-glucose glucosyltransferase. CGT5.
BAB17182.1 AP002843 Oryza sativa
putative UTP-glucose glucosyltransferase. P0407B12.19.
BAB17176.1 AP002843 Oryza sativa
putative UTP-glucose glucosyltransferase. P0407B12.13.
CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
AAG25643.1 AF303396 Phaseolus vulgaris
UDP-glucosyltransferase HRA25. putative; defense associated.
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
AAB48444.1 U82367 Solanum tuberosum
UDP-glucose glucosyltransferase.
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT.

AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
CAC09351.1 ALA42007 Oryza sativa
putative glucosyltransferase. H0212B02.7.
AAD04166.1 AF101972 Phaseolus lunatus
catalyzes formation of O-glucosylzeatin from zeatin and UDPG; catalyzes formation of O-
xylosylzeatin from zeatin and UDPX. zeatin O-glucosyltransferase. ZOG1. cytokinin O-
glucosyltransferase.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
BAB07962.1 AP002524 Oryza sativa
putative anthocyanin 5-O-glucosyltransferase. P0406H10.16. contains ESTs
AU067881(C10481),AU067882(C10481).
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
CAA54610.1 X77460 Manihot esculenta
UTP-glucose glucosyltransferase. CGT4.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate glucosyltransferase. SGT1. SGT.
BAA36423.1 AB013598 Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
CAA30760.1 X07937 Zea mays
UDPglucose flavonoid glycosyl transferase. Bz-W22.
CAA30761.1 X07940 Zea mays
UDPglucose flavonoid glycosyl-transferase. Bz-McC.
CAA31855.1 X13500 Zea mays
UDPglucose:flavonol 3-0-glucosyltransferase.
BAA19659.1 AB002818 Perilla frutescens
flavonoid 3-O-glucosyltransferase. UDP glucose.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
SEQ ID NO: 613
CAA54609.1 X77459 Manihot esculenta
UTP-glucose glucosyltransferase. CGT1.
CAA54613.1 X77463 Manihot esculenta
UTP-glucose glucosyltransferase. CGT6.

CAA54611.1 X77461 Manihot esculenta
UTP-glucose glucosyltransferase. CGT2.
CAA54612.1 X77462 Manihot esculenta
UTP-glucose glucosyltransferase. CGT5.
BAB17182.1 AP002843 Oryza sativa
putative UTP-glucose glucosyltransferase. P0407B12.19.
BAB17176.1 AP002843 Oryza sativa
putative UTP-glucose glucosyltransferase. P0407B12.13.
CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
AAB48444.1 U82367 Solanum tuberosum
UDP-glucose glucosyltransferase.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
CAC09351.1 AL442007 Oryza sativa
putative glucosyltransferase. H0212B02.7.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
AAG25643.1 AF303396 Phaseolus vulgaris
UDP-glucosyltransferase HRA25. putative; defense associated.
AAD04166.1 AF101972 Phaseolus lunatus
catalyzes formation of O-glucosylzeatin from zeatin and UDPG; catalyzes formation of O-xylosylzeatin from zeatin and UDPX. zeatin O-glucosyltransferase. ZOG1. cytokinin O-glucosyltransferase.

CAA54610.1 X77460 Manihot esculenta
UTP-glucose glucosyltransferase. CGT4.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate
glucosyltransferase. SGT1. SGT.
AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
BAA36423.1 AB013598 Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
BAB07962.1 AP002524 Oryza sativa
putative anthocyanin 5-O-glucosyltransferase. P0406H10.16. contains ESTs
AU067881(C10481), AU067882(C10481).
CAA31855.1 X13500 Zea mays
UDPglucose:flavonol 3-0-glucosyltransferase.
BAA36422.1 AB013597 Perilla frutescens
UDP-glucose:anthocyanin 5-O-glucosyltransferase homologue. PF3R6.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
SEQ ID NO: 614
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
AAB93834.1 U82481 Zea mays
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein
kinase.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.

BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAD52097.1 AF088885 Nicotiana tabacum
receptor-like kinase CHRK1. Chrk1.
AAA33915.1 L27821 Oryza sativa
receptor type serine/threonine kinase, protein kinase.
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs
AU056701(S20808),AU056702(S20808).

BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAA94529.2 AP001800 Oryza sativa Similar to Zea mays S-domain receptor-like protein kinase (AJ010166). BAA94509.1 AB041503 Populus nigra protein kinase 1. PnPK1. BAA94510.1 AB041504 Populus nigra protein kinase 2. PnPK2. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). BAB39409.1 AP002901 Oryza sativa putative protein kinase. P0456F08.9. contains EST C23560(R0290). AAG03090.1 AC073405 Orvza sativa Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821). BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. **SEQ ID NO: 619** CAA72092.1 Y11209 Nicotiana tabacum protein disulfide-isomerase precursor. PDI. AAG13988.1 AF298829 Prunus avium putative protein disulfide-isomerase. PDI. AAD02069.1 AF036939 Chlamydomonas reinhardtii redox-regulator of 5'UTR psbA mRNA binding complex and translation, protein disulfide isomerase. localized to ER and chloroplast. AAC49896.1 AF027727 Chlamydomonas reinhardtii involved in the redox-regulated binding of chloroplast poly(A)-binding protein to the 5'-UTR of psbA mRNA; regulates chloroplast translational activation. protein disulfide isomerase RB60. PDI. AAD55566.1 AF110784 Volvox carteri f. nagariensis protein disulfide isomerase precursor. pdi. AAB08519.1 L39014 Zea mays protein disulfide isomerase. pdi. putative.

AAA70344.1 L33250 Hordeum vulgare
catalyze the formation of disulfide bonds. disulfide isomerase. PDI. putative.
AAA70345.1 L33251 Hordeum vulgare
catalyze the formation of disulfide bonds. disulfide isomerase. PDI. putative.
CAC21230.1 AJ277379 Triticum turgidum subsp. durum
catalyzes formation of disulfide bonds. protein disulfide isomerase. Pdi.
AAA19660.1 U11496 Triticum aestivum
protein disulfide isomerase. PDI.
CAC21231.1 AJ277380 Triticum turgidum subsp. durum
catalyzes formation of disulfide bonds. protein disulfide isomerase. Pdi.
CAC21229.1 AJ277378 Triticum turgidum subsp. durum
catalyzes formation of disulfide bonds. protein disulfide isomerase. Pdi.
CAC21228.1 AJ277377 Triticum turgidum subsp. durum
catalyzes the formation of disulfide bonds. protein disulfide isomerase. Pdi.
AAB05641.1 U41385 Ricinus communis
protein disulphide isomerase PDI. molecular chaperone.
CAA77575.1 Z11499 Medicago sativa
protein disulfide isomerase.
AAD28260.1 AF131223 Datisca glomerata
protein disulfide isomerase homolog. PDI.
AAA70346.1 L33252 Hordeum vulgare
catalyze the formation of disulfide bonds. disulfide isomerase. PDI. putative.
BAA92322.1 AB039278 Oryza sativa
protein disulfide isomerase. Pdi.
BAA77026.1 AB026252 Lithospermum erythrorhizon
disulfide-isomerase precursor.
AAC79709.1 AF093614 Acetabularia acetabulum
putative protein disulfide isomerase.
SEQ ID NO: 620
CAA64413.1 X94943 Lycopersicon esculentum
peroxidase. cevi16.
AAA32676.1 M37637 Arachis hypogaea
cationic peroxidase. PNC2.
BAA82307.1 AB027753 Nicotiana tabacum
peroxidase.
AAB67737.1 L77080 Stylosanthes humilis
cationic peroxidase.
AAD37429.2 AF149279 Phaseolus vulgaris
peroxidase 4 precursor. FBP4. secretory peroxidase.
CAA71494.1 Y10468 Spinacia oleracea
peroxidase. prxr7.

AAD37375.1 AF145349 Glycine max
peroxidase. Prx3.
AAF63024.1 AF244921 Spinacia oleracea
hydrogen peroxide catabolism, peroxidase prx12 precursor, type III peroxidase.
CAA66037.1 X97351 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAB39274.1 AP002971 Oryza sativa
putative peroxidase. P0537A05.2.
AAA65637.1 L13654 Lycopersicon esculentum
peroxidase. TPX1.
CAA40796.1 X57564 Armoracia rusticana
peroxidase, peroxidase precursor.
AAD11482.1 U51192 Glycine max
peroxidase precursor. sEPa2.
CAA80502.1 Z22920 Spirodela polyrrhiza
peroxidase.
BAA77387.1 AB024437 Scutellaria baicalensis
peroxidase 1.
CAA59485.1 X85228 Triticum aestivum
peroxidase. POX2.
BAA07663.1 D42064 Nicotiana tabacum
cationic peroxidase isozyme 38K precursor.
BAA11853.1 D83225 Populus nigra
peroxidase.
BAA07664.1 D42065 Nicotiana tabacum
cationic peroxidase isozyme 40K precursor.
AAD37430.1 AF149280 Phaseolus vulgaris
peroxidase 5 precursor. FBP5. secretory peroxidase.
AAD11481.1 U51191 Glycine max
peroxidase precursor. sEPa1.
CAB94692.1 AJ242742 Ipomoea batatas
Removal of H2O2, oxidation of toxic reductants, defence response toward wounding.
peroxidase. pod.
BAA03644.1 D14997 Oryza sativa
peroxidase.
AAD43561.1 AF155124 Gossypium hirsutum
bacterial-induced peroxidase precursor. Perx_Goshiko.
BAA06334.1 D30652 Populus kitakamiensis
peroxidase.
BAA92500.1 AP001383 Oryza sativa
ESTs D39300(R3292), AU030751(E60187) correspond to a region of the predicted gene.
Similar to peroxidase ATP6a. (X98774).

BAA90365.1 AP001081 Oryza sativa
ESTs D24550(R2151),D24265(R1609),AU031848(R2151) correspond to a region of the
predicted gene. Similar to cationic peroxidase isozyme 40K precursor (D42065).
BAA89584.1 AP001073 Oryza sativa
ESTs D24550(R2151),D24265(R1609),AU031848(R2151) correspond to a region of the
predicted gene. Similar to cationic peroxidase isozyme 40K precursor (D42065).
AAF34416.1 AF172282 Oryza sativa
putative peroxidase. DUPR11.5.
AAC49820.1 AF014469 Oryza sativa
peroxidase. POX5.1. wound inducible.
CAA66034.1 X97348 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAB39281.1 AP002971 Oryza sativa
putative peroxidase. P0537A05.10. contains ESTs D24657(R2329),AU082066(R2329).
BAA14144.1 D90116 Armoracia rusticana
peroxidase isozyme.
AAB97734.1 AF014502 Glycine max
seed coat peroxidase precursor. Ep. H2O2 oxidoreductase; class III plant peroxidase.
CAA37713.1 X53675 Triticum aestivum
peroxidase.
AAC05277.1 AF049881 Linum usitatissimum
peroxidase FLXPER4. PER4.
CAA66035.1 X97349 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAA06335.1 D30653 Populus kitakamiensis
peroxidase.
CAA39486.1 X56011 Triticum aestivum
peroxidase.
BAA03911.1 D16442 Oryza sativa
peroxidase.
BAA94962.1 AB042103 Asparagus officinalis
peroxidase. AspPOX1.
AAC49821.1 AF014470 Oryza sativa
peroxidase. POXgX9. expressed in roots.
AAD37427.1 AF149277 Phaseolus vulgaris
peroxidase 1 precursor. FBP1. secretory peroxidase.
CAA76374.2 Y16776 Spinacia oleracea
peroxidase. prx10.
BAA08499.1 D49551 Oryza sativa
peroxidase. poxN.
CAA66036.1 X97350 Populus balsamifera subsp. trichocarpa
ordinosoni is in a robusto carametra papopi areacomp

AAA34108.1 J02979 Nicotiana tabacum
lignin-forming peroxidase precursor (EC 1.11.1.7).
CAA62226.1 X90693 Medicago sativa
peroxidase1B. prx1B.
CAA59487.1 X85230 Triticum aestivum
peroxidase. pox4.
SEQ ID NO: 626
CAA98160.1 Z73932 Lotus japonicus
GTP-binding protein. RAB1C. rab1C.
BAA76422.1 AB024994 Cicer arietinum
rab-type small GTP-binding protein.
BAA02116.1 D12548 Pisum sativum
GTP-binding protein.
CAA69701.1 Y08425 Nicotiana plumbaginifolia
small GTP-binding protein. Rab1 subfamily.
AAA80678.1 U38464 Lycopersicon esculentum
small GTP-binding protein. LeRab1A.; YPT1/Rab1A homolog LeRab1A.
BAA02118.1 D12550 Pisum sativum
GTP-binding protein.
AAB97115.1 U58854 Glycine max
small GTP-binding protein. sra2.
CAA51011.1 X72212 Nicotiana tabacum
ras-related GTP-binding protein. ypt2 homologue.
AAF65510.1 AF108883 Capsicum annuum
small GTP-binding protein.
AAA80680.1 U38466 Lycopersicon esculentum
small GTP-binding protein. LeRab1C.; YPT1/Rab1A homolog LeRab1C.
CAA98161.1 Z73933 Lotus japonicus
GTP-binding protein. RAB1D. rab1D.
BAA02117.1 D12549 Pisum sativum
GTP-binding protein.
CAA98162.1 Z73934 Lotus japonicus
GTP-binding protein. RAB1E. rab1E.
AAA50159.1 L27417 Glycine max
GTP binding protein.
AAB28535.1 S66160 Oryza sativa
ric1. ras-related GTP binding protein possessing GTPase activity; This sequence comes from
Fig. 1.
CAA98159.1 Z73931 Lotus japonicus
GTP-binding protein. RAB1B. rab1B.
BAA02115.1 D12547 Pisum sativum
GTP-binding protein.

CAA66447.1 X97853 Lotus japonicus
GTP-binding protein. RAB1A. rab1A.
AAD10389.1 U35026 Petunia x hybrida
Rab1-like small GTP-binding protein.
AAA80679.1 U38465 Lycopersicon esculentum
small GTP-binding protein. LeRab1B.; Ypt1/Rab1A homolog LeRab1B.
BAB07961.1 AP002524 Oryza sativa
putative GTP-binding protein. P0406H10.17. contains ESTs
D23874(R0480),AU031678(R0480).
CAA98176.1 Z73948 Lotus japonicus
GTP-binding protein. RAB8E. rab8E.
CAA89021.1 Z49152 Beta vulgaris
GTP-binding. small G protein.
CAA98172.1 Z73944 Lotus japonicus
GTP-binding protein. RAB8A. rab8A.
CAA04701.1 AJ001367 Daucus carota
small GTP-binding protein. Dc-Rab8.
CAA90080.1 Z49900 Pisum sativum
small GTP-binding protein.
AAD46405.1 AF096249 Lycopersicon esculentum
ethylene-responsive small GTP-binding protein. ER43.
CAA98174.1 Z73946 Lotus japonicus
GTP-binding protein. RAB8C. rab8C.
CAA90082.1 Z49902 Pisum sativum
small GTP-binding protein.
CAA49600.1 X69980 Lycopersicon esculentum
GTP-binding protein. ypt2.
CAA98175.1 Z73947 Lotus japonicus
GTP-binding protein. RAB8D. rab8D.
CAA90081.1 Z49901 Pisum sativum
small GTP-binding protein.
AAB17726.1 U38471 Brassica rapa
small GTP-binding protein rab. BRAB-1. small GTP-binding protein rab family.
AAA34251.1 L08128 Volvox carteri
GTP-binding protein. yptV2.
CAA98173.1 Z73945 Lotus japonicus
GTP-binding protein. RAB8B. rab8B.
CAA89049.1 Z49190 Beta vulgaris
GTP-binding, small G protein.
CAA98179.1 Z73951 Lotus japonicus
GTP-binding protein. RAB11C. rab11C.
AAA34253.1 L08130 Volvox carteri
GTP-binding protein. yptV4.

CAA98165.1 Z73937 Lotus japonicus
GTP-binding protein. RAB2A. rab2A.
AAA63902.1 U22433 Zea mays
GTP binding protein. rab2.
AAA90955.1 U32185 Glycine max
vesicular transport. guanine nucleotide regulatory protein. rab2. GTP-binding protein; soyrab.
SEQ ID NO: 628
AAA87456.1 U22147 Hevea brasiliensis
beta-1,3-glucanase. HGN1. hydrolytic enzyme.
CAB38443.1 AJ133470 Hevea brasiliensis
beta-1,3-glucanase. hgn1.
AAG24921.1 AF311749 Hevea brasiliensis
beta-1,3-glucanase.
AAF44667.1 AF239617 Vitis vinifera
hydrolysis of 1,3-beta-D-glucosidic linkages in 1,3-beta-D-glucans. beta-1,3-glucanase. fungal
pathogen defense-related protein.
AAA33648.1 L02212 Pisum sativum
beta-1,3-glucan hydrolysis. beta-1,3-glucanase. putative.
AAB41551.1 U27179 Medicago sativa subsp. sativa
acidic glucanase.
AAB24398.1 S51479 Pisum sativum
beta-1,3-glucanase. beta-1,3-glucanase. This sequence comes from Fig. 1B.
CAA37289.1 X53129 Phaseolus vulgaris
1,3,-beta-D-glucanase.
AAA34078.1 M63634 Nicotiana plumbaginifolia
regulator of beta(1,3)-glucanase. beta(1,3)-glucanase regulator.
AAA51643.1 M23120 Nicotiana plumbaginifolia
beta-glucanase precursor.
CAA30261.1 X07280 Nicotiana plumbaginifolia
beta-glucanase.
AAA03618.1 M80608 Lycopersicon esculentum
beta-1,3-glucanase.
AAC19114.1 AF067863 Solanum tuberosum
1,3-beta-glucan glucanohydrolase. glucanase.
AAA18928.1 U01901 Solanum tuberosum
catalyzes the hydrolysis of 1,3-beta-D-glucoside linkages in 1,3,-beta-D-glucans (such as
laminarin). 1,3-beta-D-glucan glucanohydrolase; endo-1,3-beta-D-glucanase; 1,3-beta-
glucanase (basic, class I). glub2. plant defense gene; induced expression in response to
infection, elicitor, ethylene, wounding.
AAA63539.1 M60402 Nicotiana tabacum
glucan beta-1,3-glucanase. glucanase GLA.
AAA63540.1 M60403 Nicotiana tabacum
glucan-1,3-beta-glucosidase. glucanase GLB.

AAA88794.1 U01900 Solanum tuberosum catalyzes the hydrolysis of 1,3-beta-D-glucoside linkages in 1,3,-beta-D-glucans (such as laminarin). 1,3-beta-D-glucan glucanohydrolase; endo-1,3-beta-D-glucanase; 1,3-betaglucanase (basic, class I). gluB1. plant defense gene; induced expression in response to infection, elicitor, ethylene, wounding. AAA63541.1 M59442 Nicotiana tabacum basic beta-1,3-glucanase. glucanase. AAB82772.2 AF001523 Musa acuminata beta-1, 3-glucananse. similar to beta-1, 3-glucanase. AAF08679.1 AF004838 Musa acuminata beta-1,3-glucanase. AAA19111.1 U01902 Solanum tuberosum catalyzes the hydrolysis of 1,3-beta-D-glucoside linkages in 1,3,-beta-D-glucans (such as laminarin). 1,3-beta-D-glucan glucanohydrolase; endo-1,3-beta-D-glucanase; 1,3-betaglucanase (basic, class I). gluB3. plant defense gene; induced expression in response to infection, elicitor, ethylene, wounding. AAC04710.1 AF034106 Glycine max beta-1,3-glucanase 1. SGlu1. AAC04714.1 AF034113 Glycine max beta-1,3-glucanase 8. SGlu8. CAB91554.1 AJ277900 Vitis vinifera beta 1-3 glucanase. gl. AAA34082.1 M20620 Nicotiana tabacum prepro-beta-1,3-glucanase precursor. CAA03908.1 AJ000081 Citrus sinensis glucan hydrolase. beta-1,3-glucanase. gns1. AAB03501.1 U41323 Glycine max beta-1,3-glucanase. SGN1. AAA92013.1 U49454 Prunus persica beta-1,3-glucanase. Gns1. AAA33946.1 M37753 Glycine max beta-1,3-endoglucanase (EC 3.2.1.39). Nicotiana tabacum AAA63542.1 M59443 acidic beta-1,3-glucanase. glucanase. AAF34761.1 AF227953 Capsicum annuum basic beta-1,3-glucanase. BGLU. AAD33881.1 AF141654 Nicotiana tabacum beta-1,3-glucanase. GGL4. AAG34080.1 AF294849 Capsicum annuum beta-1,3-glucanase-like protein. AAF33405.1 AF230109 Populus x canescens beta-1,3 glucanase. BGLUC.

AAD33880.1 AF141653 Nicotiana tabacum
beta-1,3-glucanase. GGL1.
CAA57255.1 X81560 Nicotiana tabacum
(1-)-beta-glucanase. Sp41a.
AAA34053.1 M60464 Nicotiana tabacum
beta-1,3-glucanase.
SEQ ID NO: 630
AAD37698.1 AF145729 Oryza sativa
homeodomain leucine zipper protein. Oshox5. transcription factor.
BAA05624.1 D26575 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 520-699; leucine zipper at nt 700-805.
AAF01765.1 AF184278 Glycine max
homeodomain-leucine zipper protein 57. Hdl57. transcription factor.
CAA64417.1 X94947 Lycopersicon esculentum
homeobox. VAHOX1.
BAA93465.1 AB028077 Physcomitrella patens
homeobox protein PpHB6. PpHB6. homeodomain-leucine zipper gene.
BAB18171.1 AB042769 Zinnia elegans
homeobox-leucine zipper protein. ZeHB3. full length.
BAA93460.1 AB028072 Physcomitrella patens
homeobox protein PpHB1. PpHB1. homeodomain-leucine zipper gene.
BAA93466.1 AB028078 Physcomitrella patens
homeobox protein PpHB7. PpHB7. homeodomain-leucine zipper gene.
BAA93461.1 AB028073 Physcomitrella patens
homeobox protein PpHB2. PpHB2. homeodomain-leucine zipper gene.
BAA05625.1 D26576 Daucus carota
transcriptiional regulator. DNA-binding protein. homeodomain at nt 300-479; leucine zipper at nt 480-587.
BAA05622.1 D26573 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851.
BAA93467.1 AB028079 Physcomitrella patens
homeobox protein PpHB8. PpHB8. homeodomain-leucine zipper gene.
BAA93464.1 AB028076 Physcomitrella patens
homeobox protein PpHB5. PpHB5. homeodomain-leucine zipper gene.
AAD37697.1 AF145728 Oryza sativa
homeodomain leucine zipper protein. Oshox4. transcription factor.
AAF01764.2 AF184277 Glycine max
homeodomain-leucine zipper protein 56. Hdl56. transcription factor.
BAA21017.1 D26578 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 761-940; leucine zipper at nt 941-1048.

BAB18168.1 AB042766 Zinnia elegans
homeobox-leucine zipper protein. ZeHB7. 3'RACE product.
BAA93468.1 AB028080 Physcomitrella patens
homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene.
BAA05623.1 D26574 Daucus carota
trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785.
AAD37699.1 AF145730 Oryza sativa
homeodomain leucine zipper protein. Oshox6. transcription factor.
AAD38144.1 AF139497 Prunus armeniaca
DNA-binding protein. homeobox leucine zipper protein. HBLZP.
AAA63768.2 AF339748 Helianthus annuus
homeobox-leucine zipper protein HAHB-4. Hahb-4.
BAA93463.1 AB028075 Physcomitrella patens
homeobox protein PpHB4. PpHB4. homeodomain-leucine zipper gene.
CAA64491.1 X95193 Pimpinella brachycarpa
transcription activator. homeobox-leucine zipper protein.
CAA64221.1 X94449 Pimpinella brachycarpa
transcription activator. homeobox-leucine zipper protein. PHZ4.
CAA64152.1 X94375 Pimpinella brachycarpa
transcription activator. homeobox-leucine zipper protein.
AAD37700.1 AF145731 Oryza sativa
homeodomain leucine zipper protein. Oshox7. transcription factor.
AAD37695.1 AF145726 Oryza sativa
homeodomain leucine zipper protein. Oshox2. transcription factor.
CAA06728.1 AJ005833 Craterostigma plantagineum
transcription factor. homeodomain leucine zipper protein. hb-2.
CAA62608.1 X91212 Lycopersicon esculentum
HD-ZIP protein. THOM1.
CAA63222.1 X92489 Glycine max
transcription activator. homeobox-leucine zipper protein.
CAA65456.2 X96681 Oryza sativa
transcription factor. DNA-binding protein. Oshox1. homeodomain leucine zipper gene.
AAF19980.1 AF211193 Oryza sativa
homeodomain-leucine zipper transcription factor. Hox1. hox1.
SEQ ID NO: 631
CAC19183.1 AJ291816 Cicer arietinum
expansin.
AAD13633.1 AF059489 Lycopersicon esculentum
expansin precursor. Exp5.
AAG13983.1 AF297522 Prunus avium
expansin 2. Exp2. PruavExp2.

AAF35902.1 AF230333 Zinnia elegans
expansin 3.
AAF32409.1 AF230276 Triphysaria versicolor
alpha-expansin 3.
AAC96080.1 AF049353 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP4. cell wall protein.
AAG13982.1 AF297521 Prunus avium
expansin 1. Exp1. PruavExp1.
AAC33529.1 U93167 Prunus armeniaca
expansin. PA-Exp1.
AAF32411.1 AF230278 Triphysaria versicolor
alpha-expansin 1.
AAF35901.1 AF230332 Zinnia elegans
expansin 2.
AAF21101.1 AF159563 Fragaria x ananassa
expansin. Exp2. ripening regulated.
BAB19676.1 AB029083 Prunus persica
expansin. PchExp1.
AAD47901.1 AF085330 Pinus taeda
expansin.
AAC33530.1 AF038815 Prunus armeniaca
expansin. Exp2.
CAC19184.1 AJ291817 Cicer arietinum
expansin.
AAB40635.1 U64891 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476,
U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession
Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.
• 1
expansin, Exp10. AAD49956.1 AF167360 Rumex palustris
•
expansin. EXP1. AAB40637.1 U64893 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession
Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession
Numbers U30477 and U30479.
AAB40634.1 U64890 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476,
U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession
Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession
Numbers U30477 and U30479.

AAB37746.1 U30382 Cucumis sativus
expansin S1 precursor. Cs-EXP1. similar to pollen allergen Lol pI, Lolium perenne, Swiss-
Prot Accession Number P14946; former gene name CuExS1; expansin-29 (Ex29) protein.
AAB40636.1 U64892 Pinus taeda
expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476,
U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession
Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.
AAC39512.1 AF043284 Gossypium hirsutum
expansin. GhEX1. contains N-terminal signal peptide.
CAB43197.1 AJ239068 Lycopersicon esculentum
cell wall loosening enzyme. expansin2. exp2.
AAC64201.1 AF096776 Lycopersicon esculentum
expansin, LeEXP2.
AAC96081.1 AF049354 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP5. cell wall protein.
CAB46492.1 AJ243340 Lycopersicon esculentum
expansin9. exp9.
AAF17570.1 AF202119 Marsilea quadrifolia
alpha-expansin. EXP1. Mq-EXP1.
AAB81662.1 U85246 Oryza sativa
expansin. Os-EXP4.
AAF62180.1 AF247162 Oryza sativa
alpha-expansin OsEXP5. cell wall loosening factor; expressed in internodes, leaves,
coleoptiles, and roots.
AAB38074.1 U30477 Oryza sativa
induces extension (creep) in plant cell walls. expansin Os-EXP2. Os-EXP2. former gene name
RiExB.
AAD13632.1 AF059488 Lycopersicon esculentum
expansin precursor. Exp4.
AAF32410.1 AF230277 Triphysaria versicolor
alpha-expansin 2.
AAG01875.1 AF291659 Striga asiatica
alpha-expansin 3. Exp3.
CAA04385.1 AJ000885 Brassica napus
Cell wall extension in plants. Expansin.
CAA06271.2 AJ004997 Lycopersicon esculentum
expansin18. exp18.
BAB32732.1 AB049406 Eustoma grandiflorum
expansin. Eg Expansin.
AAC63088.1 U82123 Lycopersicon esculentum
expansin. LeEXP1. fruit ripening regulated expansin.

AAF62182.1 AF247164 Oryza sativa
alpha-expansin OsEXP7. cell wall loosening factor; expressed in internodes and leaves.
AAB37749.1 U30460 Cucumis sativus
expansin S2 precursor. Cs-EXP2. similar to pollen allergen Lol pI, Lolium perenne, Swiss-
Prot Accession Number P14946; former gene name CuExS2; expansin-30 (Ex30) protein.
AAG32920.1 AF184232 Lycopersicon esculentum
expansin. Exp8.
CAC06433.1 AJ276007 Festuca pratensis
expansin. exp2.
AAF62181.1 AF247163 Oryza sativa
alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves.
AAC96079.1 AF049352 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.
AAC96077.1 AF049350 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP1. cell wall protein.
BAA88200.1 AP000837 Oryza sativa
EST AU078708(E60526) corresponds to a region of the predicted gene. Similar to expansin
(U85246).
AAF17571.1 AF202120 Regnellidium diphyllum
alpha-expansin. EXP1. Rd-EXP1.
AAC96078.1 AF049351 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP2. cell wall protein.
AAG01874.1 AF291658 Striga asiatica
alpha-expansin 2. Exp2.
SEQ ID NO: 634
AAF63205.1 AF245119 Mesembryanthemum crystallinum
AP2-related transcription factor. CDBP. stress induced transcription factor.
BAA97122.1 AB016264 Nicotiana sylvestris
ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesis-
related) gene of higher plant. ethylene-responsive element binding factor. nserf2.
BAA07321.1 D38123 Nicotiana tabacum
ERF1. ethylene-responsive transcription factor.
AAG43545.1 AF211527 Nicotiana tabacum
Avr9/Cf-9 rapidly elicited protein 1. ACRE1. similar to EREBP transcription factors.
BAA87068.1 AB035270 Matricaria chamomilla
ethylene-responsive element binding protein1 homolog. McEREBP1.
BAA97124.1 AB016266 Nicotiana sylvestris
ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesis-
related) gene of higher plant. ethylene-responsive element binding factor. nserf4.
AAC62619.1 AF057373 Nicotiana tabacum
transcription factor. ethylene response element binding protein 1. EREBP1.
CAB93940.1 AJ238740 Catharanthus roseus
putative transcription factor. AP2-domain DNA-binding protein. orca2.

AAK31279.1 AC079890 Oryza sativa putative ethylene-responsive element binding protein. OSJNBb0089A17.16. AAG60182.1 AC084763 Oryza sativa putative ethylene-responsive element binding protein. OSJNBa0027P10.12. CAB96900.1 AJ251250 Catharanthus roseus transcription factor. AP2-domain DNA-binding protein. orca3. CAB96899.1 AJ251249 Catharanthus roseus transcription factor, AP2-domain DNA-binding protein, orca3. CAC12822.1 AJ299252 Nicotiana tabacum AP2 domain-containing transcription factor. ap2. AAF23899.1 AF193803 Oryza sativa transcription factor EREBP1. EREBP/AP2-like transcription factor. AAF05606.1 AF190770 Oryza sativa EREBP-like protein. tsh1. TSH1; induced by ethylene. BAA97123.1 AB016265 Nicotiana sylvestris ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesisrelated) gene of higher plant. ethylene-responsive element binding factor. nserf3. BAA76734.1 AB024575 Nicotiana tabacum ethylene responsive element binding factor. BAB03248.1 AB037183 Oryza sativa ERF protein transcriptional repressor. ethylene responsive element binding factor3. osERF3. CAB93939.1 AJ238739 Catharanthus roseus putative transcription factor. AP2-domain DNA-binding protein. orca1. AAD00708.1 U91857 Stylosanthes hamata ethylene-responsive element binding protein homolog, similar to EREBP1, -2, -3 and -4 proteins encoded by GenBank Accession Numbers D38123, D38126, D38124, and D38125 respectively. AAG43548.1 AF211530 Nicotiana tabacum Avr9/Cf-9 rapidly elicited protein 111A. ACRE111A. similar to EREBP transcription factors. AAG43549.1 AF211531 Nicotiana tabacum Avr9/Cf-9 rapidly elicited protein 111B. ACRE111B. similar to EREBP transcription factors. AAK31271.1 AC079890 Oryza sativa putative transcriptional factor. OSJNBb0089A17.22. AAK01088.1 AF298230 Hordeum vulgare CBF1-like protein BCBF1. BCBF1. AP2 domain protein; putative DRE binding factor. AAC49567.1 U41466 Zea mays Glossy15. Glossy15. AP2 DNA-binding domain protein; similar to the Arabidopsis floral homeotic gene APETALA2; maize AP2-domain regulator of leaf epidermal traits; homeotic regulator of leaf epidermal cell identity; allele: W64A; putative transcription factor. **SEQ ID NO: 635** CAC19789.1 AJ251686 Catharanthus roseus putative transcription factor. MYB-like DNA-binding protein. bpf-1.

CAA55693.1 X79086 Zea mays
initiator-binding protein. IBP2.
CAA55691.1 X79085 Zea mays
initiator binding protein. IBP1.
AAF97508.1 AF242298 Oryza sativa
telomere binding protein-1. TBP1.
SEQ ID NO: 636
CAB43505.1 AJ239051 Cicer arietinum
cytochrome P450. cyp81E2.
BAA22422.1 AB001379 Glycyrrhiza echinata
cytochrome P450. CYP81E1.
BAA74465.1 AB022732 Glycyrrhiza echinata
cytochrome P450. CYP Ge-31.
CAA10067.1 AJ012581 Cicer arietinum
cytochrome P450. cyp81E3.
CAB41490.1 AJ238439 Cicer arietinum
cytochrome P450 monooxygenase. cyp81E3v2.
BAA93634.1 AB025016 Lotus japonicus
cytochrome P450.
CAA04117.1 AJ000478 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B11. chimeric sequence (from 5'-
race).
CAA04116.1 AJ000477 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B1c.
AAK38080.1 AF321856 Lolium rigidum
putative cytochrome P450.
AAK38079.1 AF321855 Lolium rigidum
putative cytochrome P450.
AAK38081.1 AF321857 Lolium rigidum
putative cytochrome P450.
AAC34853.1 AF082028 Hemerocallis hybrid cultivar
putative cyt P450-containing fatty acid hydroxylase. senescence-associated protein 3. SA3.
mRNA accumulates in senescing petals.
CAA65580.1 X96784 Nicotiana tabacum
cytochrome P450. hsr515.
CAB56742.1 AJ249800 Cicer arietinum
cytochrome P450 monooxygenase. cyp81E5.
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
BAA12159.1 D83968 Glycine max
Cytochrome P-450 (CYP93A1).
AAD56282.1 AF155332 Petunia x hybrida
flavonoid 3'-hydroxylase. Ht1. cytochrome P450; CYP75B2.

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CAA71515.1 Y10491 Glycine max
putative cytochrome P450.
AAB94590.1 AF022461 Glycine max
CYP82C1p. CYP82C1. cytochrome P450 monooxygenase.
CAA71516.1 Y10492 Glycine max
putative cytochrome P450.
CAA64635.1 X95342 Nicotiana tabacum
cytochrome P450. hsr515. hypersensitivity-related gene.
BAA13076.1 D86351 Glycine max
cytochrome P-450 (CYP93A2).
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
AAG09208.1 AF175278 Pisum sativum
wound-inducible P450 hydroxylase. CYP82A1.
AAC49188.2 U29333 Pisum sativum
cytochrome P450 monooxygenase. CYP82. new cytochrome P450 family.
AAD38930.1 AF135485 Glycine max
cytochrome P450 monooxygenaseCYP93D1. CYP93E1.
CAA71876.1 Y10982 Glycine max
putative cytochrome P450.
CAA70575.1 Y09423 Nepeta racemosa
cytochrome P450. CYP71A5.
CAA70576.1 Y09424 Nepeta racemosa
cytochrome P450. CYP71A6.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.
CAA71877.1 Y10983 Glycine max
putative cytochrome P450.
AAB94587.1 AF022458 Glycine max
CYP98A2p. CYP98A2. cytochrome P450 monooxygenase.
AAC39454.1 AF014802 Eschscholzia californica
(S)-N-methylcoclaurine 3'-hydroxylase. CYP82B1. cytochrome P-450-dependent
monooxygenase; methyl jasmonate-inducible cytochrome P-450-dependent, homologous to
wound-inducible CYP82A1 of Pisum sativum GenBank Accession Number U29333.
BAA92894.1 AB006790 Petunia x hybrida
cytochrome P450. IMT-2.
BAA84072.1 AB028152 Torenia hybrida
flavone synthase II. cytochrome P450. TFNS5.
BAA35080.1 AB015762 Nicotiana tabacum
putative cytochrome P450. CYP82E1.
CAB56743.1 AJ249801 Cicer arietinum cytochrome P450 monooxygenase. cyp81E4.

AAB17562.1 U72654 Eustoma grandiflorum
flavonoid 3'5'-hydroxylase. F3'5'H. cytochrome P450; CYP75.
AAG34695.1 AF313492 Matthiola incana
putative cytochrome P450.
BAA74466.1 AB022733 Glycyrrhiza echinata
cytochrome P450. CYP Ge-51.
BAA22423.1 AB001380 Glycyrrhiza echinata
cytochrome P450. CYP93B1.
SEQ ID NO: 639
AAC06319.1 AF053084 Malus x domestica
putative cinnamyl alcohol dehydrogenase. CAD.
CAA61275.1 X88797 Eucalyptus gunnii
cinnamyl alcohol dehydrogenase. CAD1.
SEQ ID NO: 640
BAA92916.1 AP001539 Oryza sativa
EST C26826(C50159) corresponds to a region of the predicted gene. Similar to Arabidopsis
thaliana chromosome II BAC F13A10; putative ARF1 family auxin responsive transcription
factor. (AC006418).
AAK21342.1 AC024594 Oryza sativa
putative transcription factor. OSJNBa0093B11.2.
AAG43286.1 AF140228 Oryza sativa
auxin response factor 1.
SEQ ID NO: 641
CAC24691.1 AJ132363 Brassica juncea
efflux carrier of polar auxin transport. pina.
AAG17172.1 AF190881 Populus tremula x Populus tremuloides
PIN1-like auxin transport protein. ppl1.
AAC39514.1 AF056027 Oryza sativa
auxin transport protein REH1. REH1. potential membrane protein.
SEQ ID NO: 642
AAG22044.1 AF305783 Pisum sativum
apyrase 2. apy2. phosphatase.
AAF00610.1 AF156781 Dolichos biflorus
apyrase. apyrase-2.
AAG32959.1 AF207687 Glycine soja
apyrase GS50.
AAG32960.1 AF207688 Glycine soja
apyrase GS52.
AAF00609.1 AF156780 Lotus japonicus
apyrase, nod factor binding lectin-nucleotide phosphohydrolase. LNP.
AAD31285.1 AF139807 Dolichos biflorus
apyrase. nod factor binding lectin-nucleotide phosphohydrolase. LNP.
apyrase. nou ractor omitting rectin-nucleorine phosphonyurorase. Livi.

AAF00611.1 AF156782 Medicago sativa
apyrase. nod factor binding lectin-nucleotide phosphohydrolase. LNP.
AAK15160.1 AF288132 Medicago truncatula
putative apyrase. apyl. nucleotide phosphohydrolase; Mtapyl.
BAB18896.1 AB038669 Pisum sativum
аругаѕе.
BAB18895.1 AB038668 Pisum sativum
apyrase.
BAB18894.1 AB038555 Pisum sativum
apyrase H-type.
BAB18893.1 AB038554 Pisum sativum
apyrase S-type.
BAB18900.1 AB027614 Pisum sativum
apyrase.
BAB40230.1 AB027613 Pisum sativum
S-type apyras. ATP diphosphohydrolase (apyrase) S-type.
BAB18890.1 AB023621 Pisum sativum
apyrase S-type. ATP diphosphohydrolase (apyrase) S-type.
BAA75506.1 AB022319 Pisum satiyum
apyrase, cytoskeleton associated.
BAA89275.1 AB027616 Pisum sativum
apyrase.
BAB40231.1 AB027615 Pisum sativum
S-type apyrase. ATP diphosphohydrolase (apyrase) S-type.
AAB02720.1 U58597 Solanum tuberosum
catalyzes the hydrolysis of phosphoanhydride bonds of nucleoside tri- and di- phosphates in
the presence of divalent cations. ATP-diphosphohydrolase. RROP1. apyrase, Ecto-ATPase, E-
type ATPase; NTP-diphosphohydrolase.
AAK15161.1 AF288133 Medicago truncatula
putative apyrase. apy4. nucleotide phosphohydrolase; Mtapy4.
BAB18891.1 AB030444 Pisum sativum
apyrase. ATP diphosphohydrolase, (EC 3.6.1.5) this sequence is reported in Acc#:AB022319.
BAB18892.1 AB030445 Pisum sativum
apyrase. ATP diphosphohydrolase, EC 3.6.1.5 this sequence is reported in Acc#:AB022319,
Acc#:AB027613.
SEQ ID NO: 645
AAG22044.1 AF305783 Pisum sativum
apyrase 2. apy2. phosphatase.
AAF00610.1 AF156781 Dolichos biflorus
apyrase. apyrase-2.
AAG32959.1 AF207687 Glycine soja
apyrase GS50.

AAG32960.1 AF207688 Glycine soja
apyrase GS52.
AAD31285.1 AF139807 Dolichos biflorus
apyrase. nod factor binding lectin-nucleotide phosphohydrolase. LNP.
AAK15160.1 AF288132 Medicago truncatula
putative apyrase. apy1. nucleotide phosphohydrolase; Mtapy1.
AAF00609.1 AF156780 Lotus japonicus
apyrase. nod factor binding lectin-nucleotide phosphohydrolase. LNP.
BAB18896.1 AB038669 Pisum sativum
apyrase.
BAB18895.1 AB038668 Pisum sativum
apyrase.
BAB18894.1 AB038555 Pisum sativum
apyrase H-type.
BAB18893.1 AB038554 Pisum sativum
apyrase S-type.
BAB18900.1 AB027614 Pisum sativum
apyrase.
BAB40230.1 AB027613 Pisum sativum
S-type apyras. ATP diphosphohydrolase (apyrase) S-type.
BAB18890.1 AB023621 Pisum sativum
apyrase S-type. ATP diphosphohydrolase (apyrase) S-type.
BAA75506.1 AB022319 Pisum sativum
apyrase. cytoskeleton associated.
AAF00611.1 AF156782 Medicago sativa
apyrase. nod factor binding lectin-nucleotide phosphohydrolase. LNP.
BAA89275.1 AB027616 Pisum sativum
apyrase.
BAB40231.1 AB027615 Pisum sativum
S-type apyrase. ATP diphosphohydrolase (apyrase) S-type.
AAB02720.1 U58597 Solanum tuberosum
catalyzes the hydrolysis of phosphoanhydride bonds of nucleoside tri- and di- phosphates in
the presence of divalent cations. ATP-diphosphohydrolase. RROP1. apyrase, Ecto-ATPase, E-
type ATPase; NTP-diphosphohydrolase.
AAK15161.1 AF288133 Medicago truncatula
putative apyrase. apy4. nucleotide phosphohydrolase; Mtapy4.
BAB18891.1 AB030444 Pisum sativum
apyrase. ATP diphosphohydrolase, (EC 3.6.1.5) this sequence is reported in Acc#:AB022319.
BAB18892.1 AB030445 Pisum sativum
apyrase. ATP diphosphohydrolase, EC 3.6.1.5 this sequence is reported in Acc#:AB022319, Acc#:AB027613.
SEQ ID NO: 646

AAB80947.1 AF022915 Triticum aestivum
ornithine/acetylornithine aminotransferase.
CAA69936.1 Y08680 Alnus glutinosa
acetylornithine aminotransferase. ag118.
AAK11219.1 AF324485 Oryza sativa
aminotransferase-like protein.
AAG09278.1 AF177590 Vitis vinifera
ornithine aminotransferase.
AAC78480.1 AF085149 Capsicum chinense
putative aminotransferase. pyridoxal phosphate dependent.
AAA02916.1 L08400 Vigna aconitifolia
production of pyrroline-5-carboxylate by deamination of ornithine. ornithine
aminotransferase.
AAB59330.1 M31545 Hordeum vulgare
glutamate 1-semialdehyde aminotransferase. GSA. precursor.
AAA18861.1 U03632 Chlamydomonas reinhardtii
glutamate-1-semialdehyde aminotransferase. gsa.
AAA33968.1 L12453 Glycine max
catalyzes 5-aminolevulinic acid formation from GSA. glutamate 1-semialdehyde
aminotransferase. Gsa. putative.
AAC48996.1 U20260 Glycine max
converts GSA to 5-aminolevulinic acid. glutamate 1-semialdehyde aminotransferase. Gsa1.
SEQ ID NO: 650
AAF66982.1 AF247646 Zea mays
transposase. similar to Mutator family transposases.
SEQ ID NO: 652
AAB41812.1 L36158 Medicago sativa
peroxidase. pxdD. amino acid feature: conserved domains, aa 120 126, 188 195; amino
acid feature: heme-binding domain, aa 63 68.
CAA71495.1 Y10469 Spinacia oleracea
peroxidase. prxr8.
CAA09881.1 AJ011939 Trifolium repens
peroxidase, prx2.
CAA62228.1 X90695 Medicago sativa
peroxidase2. prx2.
AAA98491.1 L36981 Petroselinum crispum
anionic peroxidase.
BAB39281.1 AP002971 Oryza sativa
putative peroxidase. P0537A05.10. contains ESTs D24657(R2329),AU082066(R2329).
AAB02926.1 U59284 Linum usitatissimum
peroxidase. FLXPER3.
BAA77387.1 AB024437 Scutellaria baicalensis
peroxidase 1.

CAA66037.1 X97351 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
CAA71488.1 Y10462 Spinacia oleracea
peroxidase. prxr1.
BAA01950.1 D11337 Vigna angularis
peroxidase.
BAA14143.1 D90115 Armoracia rusticana
peroxidase isozyme.
CAA71490.1 Y10464 Spinacia oleracea
peroxidase. prxr3.
CAB94692.1 AJ242742 Ipomoea batatas
Removal of H2O2, oxidation of toxic reductants, defence response toward wounding.
peroxidase. pod.
BAA92497.1 AP001383 Oryza sativa
ESTs AU081576(R0541), AU032412(R4029) correspond to a region of the predicted gene.
Similar to peroxidase ATP18a. (X98804).
AAC36707.1 AF078691 Manihot esculenta
peroxidase.
BAA92422.1 AP001366 Oryza sativa
ESTs AU081576(R0541), AU032412(R4029) correspond to a region of the predicted gene.
Similar to A.thaliana mRNA for peroxidase ATP18a. (X98804).
CAA62226.1 X90693 Medicago sativa
peroxidase1B. prx1B.
AAF63024.1 AF244921 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx12 precursor. type III peroxidase.
AAA32676.1 M37637 Arachis hypogaea
cationic peroxidase. PNC2.
BAA11853.1 D83225 Populus nigra
peroxidase.
CAC21393.1 AJ401276 Zea mays
peroxidase. pox3.
AAA65636.1 L13653 Lycopersicon esculentum
peroxidase. TPX2.
CAB67121.1 Y19023 Lycopersicon esculentum
peroxidase. cevi-1.
CAA62227.1 X90694 Medicago sativa
peroxidase1C. prx1C.
CAA50597.1 X71593 Lycopersicon esculentum
peroxidase. CEVI-1.
AAD37376.1 AF145350 Glycine max
peroxidase. Prx4.
AAB67737.1 L77080 Stylosanthes humilis
cationic peroxidase.

CA 471400 1 3710462 G ' . ' I
CAA71489.1 Y10463 Spinacia oleracea
peroxidase. prxr2.
CAA71496.1 Y10470 Spinacia oleracea
peroxidase. prxr9.
CAA71494.1 Y10468 Spinacia oleracea
peroxidase. prxr7.
BAA06334.1 D30652 Populus kitakamiensis
peroxidase.
CAA66034.1 X97348 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAA94962.1 AB042103 Asparagus officinalis
peroxidase. AspPOX1.
CAA80502.1 Z22920 Spirodela polyrrhiza
peroxidase.
CAA66035.1 X97349 Populus balsamifera subsp. trichocarpa
signal for ER, peroxidase.
BAA11852.1 D83224 Populus nigra
peroxidase.
CAA66036.1 X97350 Populus balsamifera subsp. trichocarpa
signal for ER, peroxidase.
BAA07241.1 D38051 Populus kitakamiensis
peroxidase. prxA4a.
AAD11481.1 U51191 Glycine max
peroxidase precursor. sEPa1.
AAC98519.1 AF007211 Glycine max
peroxidase precursor. GMIPER1. pathogen-induced.
AAA32973.1 M73234 Hordeum vulgare
peroxidase BP 1. Prx5.
AAB47602.1 L07554 Linum usitatissimum
peroxidase. FLXPER1.
AAB41810.1 L36156 Medicago sativa
peroxidase. pxdA. amino acid feature: conserved motifs, aa 181 188; amino acid feature:
heme-binding domain, aa 60 65.
AAF63027.1 AF244924 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx15 precursor. type III peroxidase.
AAA34108.1 J02979 Nicotiana tabacum
lignin-forming peroxidase precursor (EC 1.11.1.7).
AAD43561.1 AF155124 Gossypium hirsutum
bacterial-induced peroxidase precursor. Perx_Goshiko.
SEQ ID NO: 653

AAB97617.1 U83687 Apium graveolens

NADPH-dependent mannose 6-phosphate reductase. m6pr. aldo-keto reductase; similar to aldose 6-phosphate reductase also known as NADP-sorbitol-6-phosphate dehydrogenase encoded by GenBank Accession Number D11080.

BAA01853.1 D11080 Malus x domestica

NADP-dependent D-sorbitol-6-phosphate dehydrogenase. S6PDH.

AAC97607.1 AF057134 Malus x domestica

synthesizes sorbitol, a major photosynthetic product in many members of the Rosaceae family. NADP-dependent sorbitol 6-phosphate dehydrogenase. S6PDH.

SEQ ID NO: 654

BAA82556.1 AB030083 Populus nigra

lectin-like protein kinase. PnLPK.

AAB61708.1 U93048 Daucus carota

somatic embryogenesis receptor-like kinase. SERK.

BAB19337.1 AP003044 Oryza sativa

putative protein kinase. P0038C05.10. contains ESTs

AU056335(S20481),AU056336(S20481).

AAK21965.1 AY028699 Brassica napus

receptor protein kinase PERK1.

BAB39873.1 AP002882 Oryza sativa

putative protein kinase. P0439B06.8. contains ESTs

AU056701(S20808),AU056702(S20808).

AAB93834.1 U82481 Zea mays

KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase.

BAB18292.1 AP002860 Oryza sativa

putative receptor-like protein kinase. P0409B08.19.

AAK00425.1 AC069324 Oryza sativa

Putative protein kinase. OSJNBa0071K19.11.

AAD21872.1 AF078082 Phaseolus vulgaris

receptor-like protein kinase homolog RK20-1.

AAC23542.1 U20948 Ipomoea trifida

receptor protein kinase. IRK1.

CAA73134.1 Y12531 Brassica oleracea

serine/threonine kinase. BRLK.

CAB51480.1 Y14600 Sorghum bicolor

putative protein serine /threonine kinase. RLK1. accumulates in mesophyll cells.

AAG59657.1 AC084319 Oryza sativa

putative protein kinase. OSJNBa0004B24.20.

BAB16871.1 AP002537 Oryza sativa

putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192).

CAB51834.1 00069 Oryza sativa 11332.5. contains eukaryotic protein kinase domain PF. BAA94509.1 AB041503 Populus nigra protein kinase 1. PnPK1. AAG16628.1 AY007545 Brassica napus protein serine/threonine kinase BNK1. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). BAB03429.1 AP002817 Oryza sativa EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587). BAB07999.1 AP002525 Oryza sativa putative protein kinase. P0462H08.22. contains EST C22619(S11214). BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821). BAA94510.1 AB041504 Populus nigra protein kinase 2. PnPK2. Oryza sativa AAG03090.1 AC073405 Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). AAF91322.1 AF244888 Glycine max receptor-like protein kinase 1. RLK1. GmRLK1. BAA94517.1 AP001800 Oryza sativa Similar to Zea mays S-domain receptor-like protein kinase (AJ010166). BAB07905.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.13. CAB51836.1 AJ243961 Oryza sativa Putitive Ser/Thr protein kinase. 11332.7. BAA78764.1 AB023482 Oryza sativa ESTs C98382(C2985),D22444(C11129) correspond to a region of the predicted gene.; Similar to Arabidopsis thaliana APK1 gene for protein tyrosine-serine-threonine kinase.(D12522). AAA33915.1 L27821 Oryza sativa receptor type serine/threonine kinase. protein kinase. AAF91323.1 AF244889 Glycine max receptor-like protein kinase 2. RLK2. GmRLK2. CAA67145.1 X98520 Brassica oleracea receptor-like kinase. SFR2. CAA73133.1 Y12530 Brassica oleracea serine /threonine kinase. ARLK. AAF91324.1 AF244890 Glycine max receptor-like protein kinase 3. RLK3. GmRLK3.

CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
BAA92953.1 AP001551 Oryza sativa
Similar to Arabidopsis thaliana chromosome 4 BAC clone F10M6; S-receptor kinase -like protein. (AL021811).
BAB40094.1 AP003210 Oryza sativa
putative receptor protein kinase. OSJNBa0010K01.7.
AAF43496.1 AF131222 Lophopyrum elongatum
protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and ABA treatment.
AAK11674.1 AF339747 Lophopyrum elongatum
protein kinase. ESI47.
BAB07906.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.14.
BAA94516.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5, receptor-like kinase.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
SEQ ID NO: 655
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
AAB93834.1 U82481 Zea mays
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein
kinase.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.

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CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein, SRK5. receptor-like kinase.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAD52097.1 AF088885 Nicotiana tabacum
receptor-like kinase CHRK1. Chrk1.
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs
AU056701(S20808),AU056702(S20808).
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
AAA33915.1 L27821 Oryza sativa
receptor type serine/threonine kinase. protein kinase.

AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.
BAA94529.2 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192).
AAF34428.1 AF172282 Oryza sativa
receptor-like protein kinase. DUPR11.18.
AAG03090.1 AC073405 Oryza sativa
Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504).
BAB21240.1 AP002953 Oryza sativa
Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461).
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).
BAA94516.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAB07905.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.13.
BAB07906.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.14.
SEQ ID NO: 657
AAF43869.1 AF166114 Chloroplast Mesostigma viride
probable transport protein. cysA.
BAB17113.1 AP002866 Oryza sativa
putative white protein; ATP-binding cassette transporter. P0410E01.34.
BAA57907.1 AB001684 Chlorella vulgaris
sulfate transport system permease protein. cysA.
AAD54843.1 AF137379 Chloroplast Nephroselmis olivacea
probable transport protein. cysA.
BAA90508.1 AP001111 Oryza sativa
similar to ABC transporter of Arabidopsis thaliana (AC004697).
BAA90507.1 AP001111 Oryza sativa
similar to ABC transporter of Arabidopsis thaliana (AC004697).
BAA83352.1 AP000391 Oryza sativa
ESTs AU067992(C11433), AU077424(C11433) correspond to a region of the predicted gene.;
Similar to ABC transporter-7 (U43892).
AAG49003.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4b; GC splice donor confirmed by cDNA alignment and
comparative sequence. AAD10836.1 U52079 Solanum tuberosum
P-glycoprotein. pmdr1. binds ATP; ATPase; transporter; transmembrane protein.
r-grycoprotein, pinter, onius Arr, Arrasc, transporter, transmemorane protein.

BAA96612.1 AP002482 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2, BAC F14M4; putative ABC transporter
(AC004411).
BAB40032.1 AP003046 Oryza sativa
putative ABC transporter. P0445D12.3.
AAG45492.1 AY013245 Oryza sativa
36I5.4. putative ABC transporter; GC splice donor confirmed by cDNA alignment and
comparative sequence.
AAG49002.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4a; GC splice donor confirmed by cDNA and comparative
sequencing.
BAB21275.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.6.
BAB21273.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.4.
CAA94437.1 Z70524 Spirodela polyrrhiza
multidrug resistance protein. PDR5-like ABC transporter.
BAB21276.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.7. contains EST D22472(C1173).
BAB21279.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.10. contains ESTs
AU065360(R3463),AU101680(R3463).
SEQ ID NO: 658
AAD10386.1 U72255 Oryza sativa
beta-1,3-glucanase precursor. Gns9.
BAA89481.1 AB029462 Salix gilgiana
beta-1,3-glucanase. SgGN1.
CAB85903.1 AJ251646 Pisum sativum
hydrolysis of beta-1,3 conjugated glucans. beta-1,3 glucanase. gns2.
CAA49513.1 X69887 Brassica napus
beta-1,3-glucanase homologue.
AAA90953.1 U30323 Triticum aestivum
beta 1,3-glucanase. Glc1.
BAB19363.1 AP002542 Oryza sativa
putative beta-1,3-glucanase. P0679C08.2.
CAA82271.1 Z28697 Nicotiana tabacum
beta-1,3-glucanase.
CAA30261.1 X07280 Nicotiana plumbaginifolia
beta-glucanase.
AAA51643.1 M23120 Nicotiana plumbaginifolia
beta-glucanase precursor.
AAA34078.1 M63634 Nicotiana plumbaginifolia
regulator of beta(1,3)-glucanase. beta(1,3)-glucanase regulator.

AAB82772.2 AF001523 Musa acuminata
beta-1, 3-glucananse. similar to beta-1, 3-glucanase.
AAF08679.1 AF004838 Musa acuminata
beta-1,3-glucanase.
CAB71021.1 AJ271598 Hieracium piloselloides
putative role in callose degradation. putative beta-1,3-glucanase. gluc.
AAD10383.1 U72252 Oryza sativa
beta-1,3-glucanase precursor. Gns6.
AAD28732.1 AF112965 Triticum aestivum
beta-1,3-glucanase precursor. Glb3.
BAB40807.1 AB052291 Pyrus pyrifolia
catalyzing the hydrolysis of 1,3-beta-glucosyl linkages. endo-1,3-beta-glucanase-like protein.
bgn-1. Amino acid alignment of the protein(BGN-1) encoded by pear pollen bgn-1 with barley
endo-1,3-beta-glucanase(GII. accession number:pdb/1GHS-B/2.3/2/306/N/)(40% identity) and
their hydrophobic cluster analysis(HCA)(a overall HCA homology score of 87.1%) showed
that it was most likely that the bgn-1 encoded a endo-1,3-beta-glucanase. A higher
identity(59.3%) was found between BGN-1 and a putative pea endo-1,3-beta-glucanase (accession number:dad/AJ251646-1).
AAA63539.1 M60402 Nicotiana tabacum
glucan beta-1,3-glucanase. glucanase GLA.
AAA63541.1 M59442 Nicotiana tabacum
basic beta-1,3-glucanase. glucanase.
AAA63540.1 M60403 Nicotiana tabacum
glucan-1,3-beta-glucosidase. glucanase GLB.
AAA32939.1 M62907 Hordeum vulgare
hydrolysis of beta-(1-3)-glucan. (1-3)-beta-glucanase. cBGL32.
AAC14399.1 AF030771 Hordeum vulgare
beta-1,3-glucanase 2. BGL32.
AAA87456.1 U22147 Hevea brasiliensis
beta-1,3-glucanase. HGN1. hydrolytic enzyme.
BAA77784.1 AB027429 Oryza sativa
beta-1,3-glucanase.
BAA77785.1 AB027430 Oryza sativa
beta-1,3-glucanase.
CAB91554.1 AJ277900 Vitis vinifera
beta 1-3 glucanase. g1.
AAD10381.1 U72250 Oryza sativa
beta-1,3-glucanase precursor. Gns4.
AAA33946.1 M37753 Glycine max
beta-1,3-endoglucanase (EC 3.2.1.39).
AAD33881.1 AF141654 Nicotiana tabacum
beta-1,3-glucanase. GGL4.

AADOGGAA AADOOOLGG O
AAB86541.1 AF030166 Oryza sativa
glucanase. glu1.
AAD10384.1 U72253 Oryza sativa
beta-1,3-glucanase precursor. Gns7.
CAB38443.1 AJ133470 Hevea brasiliensis
beta-1,3-glucanase. hgn1.
AAB03501.1 U41323 Glycine max
beta-1,3-glucanase. SGN1.
AAA18928.1 U01901 Solanum tuberosum
catalyzes the hydrolysis of 1,3-beta-D-glucoside linkages in 1,3,-beta-D-glucans (such as
laminarin). 1,3-beta-D-glucan glucanohydrolase; endo-1,3-beta-D-glucanase; 1,3-beta-glucanase (basic, class I). glub2. plant defense gene; induced expression in response to
infection, elicitor, ethylene, wounding.
AAA88794.1 U01900 Solanum tuberosum
catalyzes the hydrolysis of 1,3-beta-D-glucoside linkages in 1,3,-beta-D-glucans (such as
laminarin). 1,3-beta-D-glucan glucanohydrolase; endo-1,3-beta-D-glucanase; 1,3-beta-
glucanase (basic, class I). gluB1. plant defense gene; induced expression in response to
infection, elicitor, ethylene, wounding.
AAC19114.1 AF067863 Solanum tuberosum
1,3-beta-glucan glucanohydrolase. glucanase.
AAG24921.1 AF311749 Hevea brasiliensis
beta-1,3-glucanase.
CAA03908.1 AJ000081 Citrus sinensis
glucan hydrolase. beta-1,3-glucanase. gns1.
CAA37289.1 X53129 Phaseolus vulgaris
1,3,-beta-D-glucanase.
CAA57255.1 X81560 Nicotiana tabacum
(1-)-beta-glucanase. Sp41a.
SEQ ID NO: 659
AAB65776.1 U97521 Vitis vinifera
class IV endochitinase. VvChi4A.
AAB65777.1 U97522 Vitis vinifera
class IV endochitinase. VvChi4B.
BAA03751.1 D16223 Oryza sativa
endochitinase. Cht-3.
CAA30142.1 X07130 Solanum tuberosum
endochitinase.
BAA03749.1 D16221 Oryza sativa
endochitinase. Cht-1.
SEQ ID NO: 660
AAF07221.1 AF072519 Nicotiana tabacum
centrin. CEN1. caltractin; EF-hand domain calcium-binding protein.

AAF07222.1 AF072520 Nicotiana tabacum
centrin. CEN2. caltractin; EF-hand domain calcium-binding protein.
CAA49153.1 X69220 Scherffelia dubia
caltractin.
AAC04626.1 U92973 Marsilea vestita
calcium-binding protein. centrin. MvCen1. caltractin.
AAB67855.1 U53812 Dunaliella salina
caltractin-like protein.
CAA41039.1 X57973 Chlamydomonas reinhardtii
caltractin.
CAA31163.1 X12634 Chlamydomonas reinhardtii
caltractin (AA 1 - 169).
SEQ ID NO: 664
BAB16432.1 AB041520 Nicotiana tabacum
WRKY transcription factor Nt-SubD48. Nt-SubD48.
AAC49528.1 U56834 Petroselinum crispum
DNA-binding. WRKY3. WRKY-type DNA-binding protein.
AAD27591.1 AF121354 Petroselinum crispum
binds sequence specifically to W Boxes (TTGACC). transcription factor. WRKY3. sequence
specific DNA-binding protein.
AAD32676.1 AF140553 Avena sativa
DNA-binding protein WRKY3. wrky3. putative transcription factor.
BAA77358.1 AB020023 Nicotiana tabacum
WRKY domain Zn-finger type DNA-binding protein. DNA-binding protein NtWRKY3.
AAG46150.1 AC018727 Oryza sativa
putative DNA-binding protein. OSJNBa0056G17.18.
BAB40073.1 AP003074 Oryza sativa
putative WRKY DNA binding protein. OSJNBa0004G10.20. contains EST C26525(C12525).
BAB18313.1 AP002865 Oryza sativa
putative WRKY DNA binding protein. P0034C11.1. contains EST C26525(C12525).
AAD38283.1 AC007789 Oryza sativa
putative WRKY DNA binding protein. OSJNBa0049B20.9.
BAA77383.1 AB020590 Nicotiana tabacum
transcription factor NtWRKY2.
BAA82107.1 AB022693 Nicotiana tabacum
transcription factor. NtWRKY1.
CAA88326.1 Z48429 Avena fatua
binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein.
AAD32677.1 AF140554 Avena sativa
DNA-binding protein WRKY1. wrky1. putative transcription factor.
AAD55974.1 AF121353 Petroselinum crispum
zinc-finger type transcription factor WRKY1. WRKY1.

AAC49529.1 U58540 Petroselinum crispum
WRKY2. Contains two WRKY domains; WRKY-type DNA-binding protein.
AAC49527.1 U48831 Petroselinum crispum
WRKY1. contains two WRKY domains; WRKY-type DNA-binding protein; sequence-
specific DNA-binding protein.
AAC31956.1 AF080595 Pimpinella brachycarpa
zinc finger protein. ZFP1. WRKY1.
BAA86031.1 AB026890 Nicotiana tabacum
transcription factor NtWRKY4.
AAD16139.1 AF096299 Nicotiana tabacum
DNA-binding protein 2. WRKY2. transcription factor.
AAF23898.1 AF193802 Oryza sativa
zinc finger transcription factor WRKY1.
AAD16138.1 AF096298 Nicotiana tabacum
DNA-binding protein 1. WRKY1. transcription factor.
AAC37515.1 L44134 Cucumis sativus
SPF1-like DNA-binding protein.
AAG35658.1 AF204925 Petroselinum crispum
transcription factor WRKY4. WRKY4. binds to W box (TTGACC) elements.
CAA88331.1 Z48431 Avena fatua
binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein.
BAB19075.1 AP002744 Oryza sativa
putative DNA-binding protein homolog. P0006C01.17.
BAB19096.1 AP002839 Oryza sativa
putative DNA-binding protein homolog. P0688A04.2.
AAK16170.1 AC079887 Oryza sativa
putative DNA binding protein. OSJNBa0040E01.4.
AAK16171.1 AC079887 Oryza sativa
putative DNA-binding protein. OSJNBa0040E01.10.
AAG35659.1 AF204926 Petroselinum crispum
transcription factor WRKY5. WRKY5. binds to W box (TTGACC) elements.
CAB97004.1 AJ278507 Solanum tuberosum
putative transcription factor. WRKY DNA binding protein. WRKY1.
AAF61864.1 AF193771 Nicotiana tabacum
DNA-binding protein 4. WRKY4. transcription factor.
BAA87069.1 AB035271 Matricaria chamomilla
elicitor-induced DNA-binding protein homolog. McWRKY1.
AAF61863.1 AF193770 Nicotiana tabacum
DNA-binding protein 3. WRKY3. transcription factor.
SEQ ID NO: 665
AAD02558.1 AF049933 Petunia x hybrida
PGPS/NH17. PGPS/NH17. protein sec61 gamma subunit homolog; protein transport to ER.
SEQ ID NO: 667

AAD51623.1 AF169020 Glycine max
seed maturation protein PM35. PM35. similar to Phaseolus vulgaris putative osmoprotector PvLEA-18.
AAC49859.1 U72764 Phaseolus vulgaris
putative osmoprotector. PvLEA-18. Pvlea-18. atypical late embryogenesis abundant protein.
AAF81194.1 AF240774 Phaseolus vulgaris
LEA-18.
SEQ ID NO: 672
CAB40743.1 AJ011885 Solanum tuberosum
starch branching enzyme II. sbe II.
CAB40746.1 AJ011888 Solanum tuberosum
starch branching enzyme II. SBE II.
CAB40748.1 AJ011890 Solanum tuberosum
starch branching enzyme II. SBE II.
AAD30186.1 AF076679 Triticum aestivum
starch branching enzyme-I. SBE-I.
AAD30187.1 AF076680 Aegilops tauschii
starch branching enzyme-I. SBE-I.
BAA82348.1 AB029548 Phaseolus vulgaris
branching enzyme 1. kbe1.
CAA56319.1 X80009 Pisum sativum
starch branching enzyme I. SBEI.
CAB40747.1 AJ011889 Solanum tuberosum
starch branching enzyme II. SBE II.
CAA03846.1 AJ000004 Solanum tuberosum
branches 1,4-alpha glucans. starch branching enzyme II, SBE-II. Sbe-II.
BAA03738.1 D16201 Oryza sativa
branching enzyme-3 precursor.
AAG27623.1 AF286319 Triticum aestivum
starch branching enzyme 2. Sbe2. glucosyltransferase.
CAA72154.1 Y11282 Triticum aestivum
1,4-alpha-glucan branching enzyme II. sbe2.
AAK26821.1 AF338431 Aegilops tauschii
starch branching enzyme IIa. SBEIIa.
AAK26822.1 AF338432 Triticum aestivum
starch branching enzyme IIa variant. SBEIIa variant.
AAC33764.1 AF072725 Zea mays
starch branching enzyme IIb. ae. SBEIIb.
AAA18571.1 L08065 Zea mays
starch branching enzyme II.
BAA82828.1 AB023498 Oryza sativa
starch branching enzyme rbe4. RBE4.

AAC69753.1 AF064560 Hordeum vulgare
starch branching enzyme IIa. sbeIIa.
CAA56320.1 X80010 Pisum sativum
starch branching enzyme II. SBEII.
AAC69754.1 AF064561 Hordeum vulgare
starch branching enzyme IIb. sbeIIb.
AAC36471.1 AF072724 Zea mays
starch branching enzyme I. sbe1. confirmed by partial peptide sequencing.
AAA82735.1 U17897 Zea mays
starch branching enzyme I. sbel.
AAD50279.2 AF169833 Sorghum bicolor
seed starch branching enzyme. SBE.
BAA01854.1 D11081 Zea mays
branching enzyme-I precursor.
CAA49463.1 X69805 Solanum tuberosum
1,4-alpha-glucan branching enzyme. SBE.
CAA70038.1 Y08786 Solanum tuberosum
1,4-alpha-glucan branching enzyme. sbeI.
AAB17086.1 U66376 Triticum aestivum
1,4-alpha-D-glucan 6-alpha-D-(1,4-alpha-D-glucanotransferase, branching enzyme,
AAB67316.1 U65948 Zea mays
formation of alpha-1-6 glucosidic linkage in starch biosynthesis. starch branching enzyme IIa.
Sbe2a. starch branching enzyme isozyme SBEIIa.
BAB40334.1 AB042937 Ipomoea batatas
starch branching enzyme. IBE.
BAA01584.1 D10752 Oryza sativa
branching enzyme.
AAD28284.1 AF136268 Oryza sativa subsp. japonica
starch-branching enzyme I. Rbe1.
BAA01616.1 D10838 Oryza sativa
1,4-alpha-glucan branching enzyme. sbe1.
BAA01855.1 D11082 Oryza sativa
branching enzyme-I precursor.
CAB40981.1 AJ237897 Triticum aestivum
starch branching enzyme I. sbel. alternative.
starch branching enzyme I. sbe1. alternative. CAB40979.1 AJ237897 Triticum aestivum
CAB40979.1 AJ237897 Triticum aestivum
CAB40979.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. CAB40980.1 AJ237897 Triticum aestivum
CAB40979.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1.
CAB40979.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. CAB40980.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. alternative. AAG27622.1 AF286318 Triticum aestivum
CAB40979.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. CAB40980.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. alternative. AAG27622.1 AF286318 Triticum aestivum starch branching enyzyme 1. Sbe1A. glucosyltransferase.
CAB40979.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. CAB40980.1 AJ237897 Triticum aestivum starch branching enzyme I. sbe1. alternative. AAG27622.1 AF286318 Triticum aestivum starch branching enyzyme 1. Sbe1A. glucosyltransferase.

CAA72987.1 Y12320 Triticum aestivum
starch branching enzyme I. Sbe1.
AAG27621.1 AF286317 Triticum aestivum
starch branching enyzyme 1. Sbe1D. glucosyltransferase.
BAA82349.1 AB029549 Phaseolus vulgaris
branching enzyme 3. kbe3.
AAB61925.1 AF002820 Triticum aestivum
starch branching enzyme I. wSBE I-D2.
CAB40749.1 AJ011891 Solanum tuberosum
starch branching enzyme II. SBE II.
CAB40745.1 AJ011887 Solanum tuberosum
starch branching enzyme II. SBE II.
CAB40744.1 AJ011886 Solanum tuberosum
starch branching enzyme II. SBE II.
BAA85762.1 AB028067 Nicotiana tabacum
starch branching enzyme. SBE.
CAA49371.1 X69713 Manihot esculenta
branching enzyme. r-2.
BAB40335.1 AB042940 Ipomoea batatas
starch branching enzyme. IBE.
CAA49370.1 X69712 Manihot esculenta
branching enzyme. r-1.
AAC72336.1 AF064563 Hordeum vulgare
starch branching enzyme IIb. sbeIIb.
SEQ ID NO: 673
CAA09881.1 AJ011939 Trifolium repens
peroxidase. prx2.
CAA62228.1 X90695 Medicago sativa
peroxidase2. prx2.
CAA71495.1 Y10469 Spinacia oleracea
peroxidase. prxr8.
AAB41812.1 L36158 Medicago sativa
peroxidase. pxdD. amino acid feature: conserved domains, aa 120 126, 188 195; amino
acid feature: heme-binding domain, aa 63 68.
BAA77387.1 AB024437 Scutellaria baicalensis
peroxidase 1.
AAF63024.1 AF244921 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx12 precursor. type III peroxidase.
AAD11483.1 U51193 Glycine max
peroxidase. sEPb1.
AAB67737.1 L77080 Stylosanthes humilis
cationic peroxidase.

BAA07663.1 D42064 Nicotiana tabacum
cationic peroxidase isozyme 38K precursor.
BAA07664.1 D42065 Nicotiana tabacum
cationic peroxidase isozyme 40K precursor.
CAB94692.1 AJ242742 Ipomoea batatas
Removal of H2O2, oxidation of toxic reductants, defence response toward wounding.
peroxidase. pod.
CAB67121.1 Y19023 Lycopersicon esculentum
peroxidase. cevi-1.
CAA62226.1 X90693 Medicago sativa
peroxidase1B. prx1B.
CAA50597.1 X71593 Lycopersicon esculentum
peroxidase. CEVI-1.
AAD11481.1 U51191 Glycine max
peroxidase precursor. sEPa1.
AAD11484.1 U51194 Glycine max
peroxidase. sEPb2.
BAA82306.1 AB027752 Nicotiana tabacum
peroxidase.
AAA65637.1 L13654 Lycopersicon esculentum
peroxidase. TPX1.
AAD11482.1 U51192 Glycine max
peroxidase precursor. sEPa2.
CAA62225.1 X90692 Medicago sativa
peroxidase1A. prx1A.
AAC98519.1 AF007211 Glycine max
peroxidase precursor. GMIPER1. pathogen-induced.
AAD37427.1 AF149277 Phaseolus vulgaris
peroxidase 1 precursor. FBP1. secretory peroxidase.
BAA14144.1 D90116 Armoracia rusticana
peroxidase isozyme.
AAA98491.1 L36981 Petroselinum crispum
anionic peroxidase.
CAA71488.1 Y10462 Spinacia oleracea
peroxidase. prxr1.
AAD43561.1 AF155124 Gossypium hirsutum
bacterial-induced peroxidase precursor. Perx_Goshiko.
BAA14143.1 D90115 Armoracia rusticana
peroxidase isozyme.
CAA71490.1 Y10464 Spinacia oleracea
peroxidase. prxr3.
AAB02554.1 L37790 Stylosanthes humilis
cationic peroxidase.

CAA66037.1 X97351 Populus balsamifera subsp. trichocarpa
signal for ER. peroxidase.
BAA01877.1 D11102 Populus kitakamiensis
peroxidase. prxA1.
CAA62227.1 X90694 Medicago sativa
peroxidase1C. prx1C.
BAA07241.1 D38051 Populus kitakamiensis
peroxidase. prxA4a.
BAA01950.1 D11337 Vigna angularis
peroxidase.
AAF65464.2 AF247700 Oryza sativa
peroxidase POC1.
AAF63027.1 AF244924 Spinacia oleracea
hydrogen peroxide catabolism. peroxidase prx15 precursor. type III peroxidase.
CAC21393.1 AJ401276 Zea mays
peroxidase. pox3.
CAA59487.1 X85230 Triticum aestivum
peroxidase. pox4.
AAD37430.1 AF149280 Phaseolus vulgaris
peroxidase 5 precursor. FBP5, secretory peroxidase.
CAA71491.1 Y10465 Spinacia oleracea
peroxidase. prxr4.
AAB41811.1 L36157 Medicago sativa
peroxidase. pxdC. amino acid feature: conserved domains, aa 123 129, 191 198; amino
acid feature: heme-binding domain, aa 68 73.
BAA03644.1 D14997 Oryza sativa
peroxidase.
AAA32676.1 M37637 Arachis hypogaea
cationic peroxidase. PNC2.
CAA71494.1 Y10468 Spinacia oleracea
peroxidase. prxr7.
AAA34050.1 M74103 Nicotiana sylvestris
anionic peroxidase.
CAA40796.1 X57564 Armoracia rusticana
peroxidase. peroxidase precursor.
SEQ ID NO: 674
AAG31438.1 AF241793 Perilla frutescens
limonene synthase.
BAA08367.1 D49368 Perilla frutescens
limonene cyclase.
BAA21629.1 AB005744 Perilla frutescens
catalyzing the cyclization of geranyl pyrophosphate to 1-limonene. 1-limonene synthase.
gPFLC. similar to perilla PFLC-1:DDBJ Acc#D49368.

AAG31437.1 AF241792 Perilla frutescens
limonene synthase.
AAK06663.1 AF317695 Perilla frutescens var. frutescens
limonene synthase.
AAG31435.1 AF241790 Perilla citriodora
limonene synthase.
AAF65545.1 AF233894 Perilla citriodora
limonene synthase.
AAD50304.1 AF175323 Mentha longifolia
limonene synthase. monoterpene synthase.
AAC37366.1 L13459 Mentha spicata
4S-limonene synthase.
AAG01140.1 AF282875 Schizonepeta tenuifolia
(+)-4R-limonene synthase.
AAC61260.1 AF061285 Capsicum annuum
sesquiterpene cyclase. UV induced.
AAG09949.1 AF171216 Lycopersicon esculentum
vetispiradiene synthase. LEVS2. sesquiterpene cyclase.
AAF74977.1 AF270425 Gossypium hirsutum
(E,E)-farnesyl diphosphate cyclase. (+)-delta-cadinene synthase. cdn2. sesquiterpene cyclase.
BAA82141.1 AB023816 Solanum tuberosum
vetispiradiene synthase. PVS4. potato sesquiterpene cyclase.
BAA82092.1 AB022598 Solanum tuberosum
vetispiradiene synthase. PVS1. potato sesquiterpene cyclase.
AAF21053.1 AF212433 Capsicum annuum
UV-induced sesquiterpene cyclase. SC2.
BAA82109.1 AB022720 Solanum tuberosum
vetispiradiene synthase. PVS3. potato sesquiterpene cyclase; PVS3.
BAA82108.1 AB022719 Solanum tuberosum
vetispiradiene synthase. PVS2. potato sesquiterpene cyclase; PVS2.
AAC12784.1 U88318 Gossypium hirsutum
(E,E)-farnesyl diphosphate cyclizing. (+)-delta-cadinene synthase. cdn1. sesquiterpene
cyclase; delta-cadinene synthase.
AAG24640.2 AF304444 Artemisia annua
sesquiterpene cyclase.
AAK15641.1 AF326117 Capsicum annuum
sesquiterpene cyclase. PSC2.
CAC12731.1 AJ271792 Artemisia annua
putative sesquiterpene cyclase. cASC125.
SEQ ID NO: 675
CAA50609.1 X71609 Nicotiana tabacum
ras-related GTP-binding protein.

CAA98166.1 Z73938 Lotus japonicus
GTP-binding protein, RAB5A, rab5A.
CAC24477.1 AJ296336 Cichorium intybus x Cichorium endivia
GTP binding protein. chi3154.
CAC24476.1 AJ296335 Cichorium intybus x Cichorium endivia
GTP binding protein. chi3152.
CAB57220.1 AJ249866 Cichorium intybus x Cichorium endivia
GTP binding protein. gtp2.
CAB57219.1 AJ249865 Cichorium intybus x Cichorium endivia
GTP binding protein. gtp1.
CAC24475.1 AJ296334 Cichorium intybus x Cichorium endivia
GTP binding protein. chi3153.
CAA46112.1 X64941 Nicotiana plumbaginifolia
small GTP binding protein.
CAC24474.1 AJ296333 Cichorium intybus x Cichorium endivia
GTP binding protein. chi3151.
CAC19792.1 AJ292320 Oryza sativa
small GTP-binding protein, RAB family. RAB5A protein. rab5A.
AAD28731.1 AF112964 Triticum aestivum
small GTP-binding protein. Sgp.
CAA98167.1 Z73939 Lotus japonicus
GTP-binding protein. RAB5B. rab5B.
CAA06922.1 AJ006225 Mesembryanthemum crystallinum
small GTP-binding protein. rab5B.
AAG42497.1 AF323991 Oryza sativa
small GTP-binding protein RAB5B, rab5B.
BAA84717.1 AB032761 Oryza sativa
GTP-binding protein. rab5B.
AAG24438.1 AF304518 Oryza sativa
small GTP-binding protein RAB5B. rab5B.
CAB57221.1 AJ249867 Cichorium intybus x Cichorium endivia
GTP binding protein. b1.5.
CAA98180.1 Z73952 Lotus japonicus
GTP-binding protein, RAB11D, rab11D.
CAA98181.1 Z73953 Lotus japonicus
GTP-binding protein, RAB11E. rab11E.
BAA02114.1 D12546 Pisum sativum
GTP-binding protein.
BAA02113.1 D12545 Pisum sativum
GTP-binding protein.
BAA02116.1 D12548 Pisum sativum
GTP-binding protein.

BAA02112.1 D12544 Pisum sativum
GTP-binding protein.
BAA02118.1 D12550 Pisum sativum
GTP-binding protein.
CAA98159.1 Z73931 Lotus japonicus
GTP-binding protein. RAB1B. rab1B.
CAB65172.1 AJ245570 Lycopersicon esculentum
putative role in secretion of cell wall modifying enzymes. Rab11 GTPase. Rab11a.
CAA89049.1 Z49190 Beta vulgaris
GTP-binding. small G protein.
BAA02110.1 D12542 Pisum sativum
GTP-binding protein.
AAB97114.1 U58853 Glycine max
small GTP-binding protein. sra1.
BAA02904.1 D13758 Oryza sativa
ras-related GTP binding protein. ss230.
CAA98178.1 Z73950 Lotus japonicus
GTP-binding protein. RAB11B. rab11B.
CAA98177.1 Z73949 Lotus japonicus
GTP-binding protein. RAB11A. rab11A.
AAK15703.1 AF327517 Oryza sativa
GTP-binding protein.
AAF65510.1 AF108883 Capsicum annuum
small GTP-binding protein.
BAA76422.1 AB024994 Cicer arietinum
rab-type small GTP-binding protein.
CAA98160.1 Z73932 Lotus japonicus
GTP-binding protein. RAB1C. rab1C.
AAA80680.1 U38466 Lycopersicon esculentum
small GTP-binding protein. LeRab1C.; YPT1/Rab1A homolog LeRab1C.
AAA80678.1 U38464 Lycopersicon esculentum
small GTP-binding protein. LeRab1A.; YPT1/Rab1A homolog LeRab1A.
SEQ ID NO: 676
AAA80499.1 U20594 Lycopersicon esculentum
leucine aminopeptidase.
CAA54314.1 X77015 Solanum tuberosum
leucine aminopeptidase. LAP.
CAA48038.1 X67845 Solanum tuberosum
leucine aminopeptidase. LAP.
AAC49457.1 U50152 Lycopersicon esculentum
peptidase. leucine aminopeptidase. lap2.

AAC49456.1 U50151 Lycopersicon esculentum
exoprotease in the defense response. leucine aminopeptidase. lap.
AAA80498.1 U20593 Lycopersicon esculentum
leucine aminopeptidase.
CAA68143.1 X99825 Petroselinum crispum
cytosol aminopeptidase. leucine aminopeptidase.
BAA90521.1 AB037678 Phaseolus vulgaris
leucine aminopeptidase.
SEQ ID NO: 678
CAC09580.1 AJ298992 Fagus sylvatica
Abscisic acid (ABA) and calcium induced protein kinase. protein kinase (PK). pk1.
AAA34002.1 M67449 Glycine max
protein kinase. PK6.
AAK11734.1 AY027437 Arachis hypogaea
serine/threonine/tyrosine kinase.
BAB16918.1 AP002863 Oryza sativa
putative protein kinase. P0005A05.22.
CAA06334.1 AJ005077 Lycopersicon esculentum
protein kinase. TCTR2 protein. TCTR2.
AAG31141.1 AF305911 Oryza sativa
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.
CAA73722.1 Y13273 Lycopersicon esculentum
putative protein kinase.
AAD46406.1 AF096250 Lycopersicon esculentum
ethylene-responsive protein kinase TCTR1. ER50. serine/threonine kinase; similar to
Arabidopsis thaliana negative regulator of the ethylene response pathway encoded by
GenBank Accession Number L08789.
AAG31142.1 AF305912 Hordeum vulgare
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.
AAD10056.1 AF110518 Lycopersicon esculentum
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit
ripening inducible CTR1-like protein kinase; TCTR1.
AAD10057.1 AF110519 Lycopersicon esculentum
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit
ripening inducible CTR1-like protein kinase; TCTR1v.
AAK30005.1 AY029067 Rosa hybrid cultivar
CTR2 protein kinase.
BAB39409.1 AP002901 Oryza sativa
putative protein kinase. P0456F08.9. contains EST C23560(R0290).
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).

BAA06538.1 D31737 Nicotiana tabacum
protein-serine/threonine kinase.
BAB21240.1 AP002953 Oryza sativa
Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461),C22360(C11461).
BAA94528.1 AP001800 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2 BAC T20K24; putative receptor-like protein
kinase (AC002392).
BAB17126.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.16.
BAB39451.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.24.
BAB17348.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.32.
BAB17321.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.1.
BAB17129.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.20.
AAF68398.1 AF237568 Oryza sativa
receptor-like protein kinase. RLG2.
BAB07905.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.13.
BAA94517.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAB17335.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.17. contains ESTs D47575(S13157), AU032665(S13157).
BAB39441.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.11.
BAB17116.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.3.
AAF78044.1 AF248493 Oryza sativa
receptor-like kinase. RLG18. protein kinase.
CAB51834.1 00069 Oryza sativa
11332.5. contains eukaryotic protein kinase domain PF.
BAB17127.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.17.
AAF78021.1 AF238477 Oryza sativa
receptor-like kinase. RLG5. protein kinase.
AAD46420.1 AF100771 Hordeum vulgare
receptor-like kinase. Hv3ARK. similar to wheat ARK1AS.
AAD46917.1 AF164021 Oryza sativa
receptor kinase.
BAB17345.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.29.

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BAB39438.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.7.
AAF78018.1 AF238474 Oryza sativa
receptor-like kinase. RLG16. protein kinase.
AAC01746.1 AF044489 Oryza sativa
receptor-like protein kinase. drpk1.
BAB17337.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.21. contains ESTs D47575(S13157), AU032665(S13157).
BAB17347.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.31. contains ESTs D47575(S13157), AU032665(S13157).
BAB17344.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.28. contains ESTs D47575(S13157), AU032665(S13157).
BAB39437.1 AP003338 Oryza sativa
receptor-like kinase. OJ1212_B09.6.
AAF78019.1 AF238475 Oryza sativa
receptor-like kinase. RLG17. protein kinase.
BAA05648.1 D26601 Nicotiana tabacum
protein kinase.
BAB17332.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.13. contains ESTs D47575(S13157), AU032665(S13157).
BAB39435.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.2.
SEQ ID NO: 679
CAA78386.1 Z13996 Petunia x hybrida
DNA binding protein; transcriptional activator, protein 1. myb.Ph3. Product related to animal
myb proto-oncoproteins. Sequence from nucleotide 992 is not included in clone cPF1 and has been obtained by PCR amplification of cDNA.
CAB43399.1 AJ006292 Antirrhinum majus
Myb-related transcription factor mixta-like 1. mybml1.
CAA67600.1 X99210 Lycopersicon esculentum
myb-related transcription factor. THM16.
BAA23337.1 D88617 Oryza sativa
transfactor. OSMYB1. Osmyb1.
AAA82943.1 U39448 Picea mariana
MYB-like transcriptional factor MBF1. putative DNA binding region highly similar to the
maize C1.
CAA64614.1 X95296 Lycopersicon esculentum
transcription factor, THM27, myb-related.
BAA93038.1 AP001552 Oryza sativa
EST AU082058(C12976) corresponds to a region of the predicted gene. Similar to
Arabidopsis thaliana putative transcription factor (AF062916).

AAC04720.1 AF034134 Gossypium hirsutum putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-O. similar to MYB A encoded by GenBank Accession Number L04497. CAA72186.1 Y11351 Oryza sativa myb factor. myb. AAF22256.1 AF161711 Pimpinella brachycarpa myb-related transcription factor. BAB39987.1 AP003020 Oryza sativa putative transcription factor (myb). P0498A12.16. contains ESTs AU097474(S5087),D40175(S1959). BAB39972.1 AP003018 Oryza sativa putative transcription factor (myb). OSJNBa0004B13.27. contains ESTs AU097474(S5087),D40175(S1959). BAA23338.1 D88618 Oryza sativa transfactor. OSMYB2. Osmyb2. BAA88222.1 AB028650 Nicotiana tabacum myb-related transcription factor LBM2. lbm2. CAA67575.1 X99134 Lycopersicon esculentum transcription factor. THM6. myb-related. CAA78387.1 Z13997 Petunia x hybrida DNA-binding protein, transcriptional activator, protein 2, myb.Ph2, related to animal myb proto-oncoproteins. CAA66952.1 X98308 Lycopersicon esculentum THM18, myb-related transcription factor. BAA23339.1 D88619 Oryza sativa transfactor. OSMYB3. Osmyb3. AAC49394.1 U57002 Zea mays P protein. P. allele P-wr; Myb-like transcriptional regulator with a putative zinc-finger at the C-terminal. AAB41101.1 U72762 Nicotiana tabacum transcription factor Myb1. myb1. TMV-inducible Myb homolog; contains helix-turn-helix motif; contains redox-sensitive cysteine. AAA33500.1 M73028 Zea mays myb-like transcription factor. P. AAG36774.1 AF210616 Zea mays P2 protein. P2. myb-like transcriptional factor, similar to Zea mays P gene. BAA88223.1 AB028651 Nicotiana tabacum myb-related transcription factor LBM3. lbm3. BAA88224.1 AB028652 Nicotiana tabacum myb-related transcription factor LBM4. lbm4. CAA72187.1 Y11352 Oryza sativa myb factor. myb.

BAA88221.1 AB028649 Nicotiana tabacum
myb-related transcription factor LBM1. lbm1.
CAA72185.1 Y11350 Oryza sativa
myb factor. myb.
AAG13574.1 AC037425 Oryza sativa
myb factor. OSJNBa0055P24.4.
SEQ ID NO: 680
AAA34238.1 L20507 Vigna radiata
calmodulin.
AAA34014.1 L01432 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-3. putative.
AAA34013.1 L01430 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-1. putative.
CAA36644.1 X52398 Medicago sativa
calmodulin (AA 1-149).
AAD10245.1 AF030033 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
AAD10244.1 AF030032 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
CAA74307.1 Y13974 Zea mays
calmodulin.
CAA46150.1 X65016 Oryza sativa
calmodulin. cam.
AAC36058.1 AF042839 Oryza sativa
calmodulin. CaM2.
AAD10246.1 AF030034 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
CAA54583.1 X77397 Zea mays
calmodulin. CaM2.
BAA87825.1 AP000815 Oryza sativa
ESTs AU030013(E50493),AU081341(E50493) correspond to a region of the predicted gene.
Similar to O.sativa gene encoding calmodulin. (Z12828).
AAA92681.1 U13882 Pisum sativum
calcium-binding protein, calmodulin.
AAA33706.1 M80836 Petunia x hybrida
calmodulin. CAM81.
AAA33705.1 M80831 Petunia x hybrida
calmodulin-related protein. CAM53.
CAA43143.1 X60738 Malus x domestica
Calmodulin. CaM.

CAA78301.1 Z12839 Lilium longiflorum
CAA78301.1 Z12839 Lilium longiflorum calcium binding protein, signal transduction. calmodulin.
AAA33397.1 L18912 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin. putative. CAA42423.1 X59751 Daucus carota
calmodulin. Ccam-1.
CAA67054.1 X98404 Capsicum annuum
calmodulin-2.
AAG27432.1 AF295637 Elaeis guineensis
calmodulin.
AAG11418.1 AF292108 Prunus avium
calmodulin.
AAA34237.1 L20691 Vigna radiata
calmodulin.
AAC49587.1 U49105 Triticum aestivum
calmodulin TaCaM4-1. calcium-binding protein.
AAC49586.1 U49104 Triticum aestivum
calmodulin TaCaM3-3. calcium-binding protein.
AAC49585.1 U49103 Triticum aestivum
calmodulin TaCaM3-2. calcium-binding protein.
AAC49584.1 U48693 Triticum aestivum
calmodulin TaCaM3-1. calcium-binding protein.
AAC49583.1 U48692 Triticum aestivum
calmodulin TaCaM2-3. calcium-binding protein.
AAC49582.1 U48691 Triticum aestivum
calmodulin TaCaM2-2. calcium-binding protein.
AAC49580.1 U48689 Triticum aestivum
calmodulin TaCaM1-3. calcium-binding protein.
AAC49579.1 U48688 Triticum aestivum
calmodulin TaCaM1-2. calcium binding protein.
AAC49578.1 U48242 Triticum aestivum
calmodulin TaCaM1-1. calcium-binding.
AAA03580.1 L01431 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-2. putative.
AAB36130.1 S81594 Vigna radiata
auxin-regulated calmodulin. auxin-regulated calmodulin, arCaM. This sequence comes from
Fig. 1; arCaM.
AAA33901.1 L18913 Oryza sativa
calcium binding protein, signal transduction. calmodulin. putative.
CAA78287.1 Z12827 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
AAB46588.1 U83402 Capsicum annuum
calmodulin.

CAA61980.1 X89890 Bidens pilosa
Calmodulin.
AAA32938.1 M27303 Hordeum vulgare
calmodulin.
BAA88540.1 AP000969 Oryza sativa
ESTs AU081349(E61253), D41425(S3918) correspond to a region of the predicted gene.
Similar to calmodulin. (AF042840).
AAF65511.1 AF108889 Capsicum annuum
calmodulin.
AAC36059.1 AF042840 Oryza sativa
calmodulin. CaM1.
AAA33900.1 L18914 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
CAA78288.1 Z12828 Oryza sativa
calcium binding protein, signal transduction. calmodulin.
AAA34015.1 L01433 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-4. putative.
AAA16320.1 L14071 Bryonia dioica
calmodulin. Bc329. calcium-binding sites (amino acid #): 1. (2133); 2. (5768); 3. (94106);
4. (130141).
AAA19571.1 U10150 Brassica napus
calcium binding. calmodulin. bcm1.
AAA87347.1 M88307 Brassica juncea
calmodulin.
CAA52602.1 X74490 Zea mays
Calmodulin. ZMCALM1.
SEQ ID NO: 683
CAA71800.1 Y10847 Brassica juncea
O-acetylserine(thiol) lyase.
CAA71798.1 Y10845 Brassica juncea
O-acetylserine(thiol) lyase.
AAC25635.1 AF044172 Solanum tuberosum
cysteine synthase. CS-A; O-acetylserine (thiol) lyase; cytosolic isoform.
BAA01279.1 D10476 Spinacia oleracea
O-acetylserine(thiol) lyase.
BAA02438.1 D13153 Triticum aestivum
O-acetylserine (thiol) lyase. cys1.
CAA59798.1 X85803 Zea mays
O-acetylserine (thiol) lyase. Mcysp. cysteine synthase.
AAD23907.1 AF073695 Oryza sativa
cysteine synthase, rcs1. O-acetylserine(thiol)-lyase.
AAD23909.1 AF073697 Oryza sativa
cysteine synthase. rcs3. O-acetylserine(thiol)-lyase.
-J

AAC25636.1 AF044173 Solanum tuberosum
cysteine synthase. CS-B; O-acetylserine (thiol) lyase; plastidic isoform.
AAC27794.1 AF078693 Chlamydomonas reinhardtii
cysteine biosynthesis. putative O-acetylserine(thiol)lyase precursor. Crcys-1A.
CAA06819.1 AJ006024 Cicer arietinum
cysteine synthase, O-acetyl-L-serine (thiol)-lyase.
CAA46086.1 X64874 Capsicum annuum
O-acetylserine (thiol)-lyase.
CAA71799.1 Y10846 Brassica juncea
O-acetylserine(thiol) lyase.
AAA16973.1 L05184 Chloroplast Spinacia oleracea
O-acetylserine-(thiol)-lyase.
AAD23908.1 AF073696 Oryza sativa
cysteine synthase. rcs2. O-acetylserine(thiol)-lyase.
AAD23910.1 AF073698 Oryza sativa
cysteine synthase. rcs4. O-acetylserine(thiol)-lyase.
SEQ ID NO: 684
AAA68983.1 L12395 Brassica napus
signal transduction, membrane vehicle traffic. small GTP-binding protein. bra. putative.
SEQ ID NO: 685
AAB61961.1 L81152 Oryza sativa
integral membrane protein. OsNramp2.
AAB36424.1 S81897 Oryza sativa
OsNramp1. OsNramp1. Nramp1 homolog/Bcg product homolog; This sequence comes from
Fig. 2.
AAB62273.1 L41217 Oryza sativa
integral membrane protein. OsNramp1. putative.
AAC49720.1 U60767 Oryza sativa
integral membrane protein OsNramp3. OsNramp3.
SEQ ID NO: 686
AAC04719.1 AF034133 Gossypium hirsutum
putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-N.
similar to MYB A encoded by GenBank Accession Number L04497.
AAB58314.1 U33917 Craterostigma plantagineum
Cpm7. cpm7. putative DNA-binding protein; myb-like gene; myb-related transcription factor.
AAB58313.1 U33916 Craterostigma plantagineum
Cpm5. cpm5. putative DNA-binding protein; myb-related gene; myb-related transcription
factor.
AAC13876.1 U33915 Craterostigma plantagineum
myb-related transcription factor Cpm10. cpm10. putative DNA-binding protein.

AAK08983.1 AY026332 Oryza sativa
Myb transcription factor JAMyb. related to host cell death and defense responses; induced by
jasmonic acid, wounding, or infection of rice blast fungus, but not by salicylic acid or abscisic
acid.
BAB18296.1 AP002860 Oryza sativa
putative myb-related transcription factor. P0409B08.23.
CAA71992.1 Y11105 Pisum sativum
Myb26.
BAB40790.1 AB058642 Lilium hybrid division I
LhMyb.
AAK19618.1 AF336285 Gossypium hirsutum
GHMYB38. ghmyb38. similar to myb.
CAA78387.1 Z13997 Petunia x hybrida
DNA-binding protein, transcriptional activator. protein 2. myb.Ph2. related to animal myb
proto-oncoproteins.
BAA88221.1 AB028649 Nicotiana tabacum
myb-related transcription factor LBM1. lbm1.
BAA88224.1 AB028652 Nicotiana tabacum
myb-related transcription factor LBM4. lbm4.
AAK19617.1 AF336284 Gossypium hirsutum
GHMYB36. ghmyb36. similar to myb.
AAA33067.1 L04497 Gossypium hirsutum
MYB A; putative.
AAK19615.1 AF336282 Gossypium hirsutum
GHMYB10. ghmyb10. similar to myb.
BAA81733.2 AB029162 Glycine max
GmMYB29A2.
BAA81732.1 AB029161 Glycine max
GmMYB29A2.
BAA81730.1 AB029159 Glycine max
GmMYB29A1.
BAA88223.1 AB028651 Nicotiana tabacum
myb-related transcription factor LBM3. lbm3.
AAB41101.1 U72762 Nicotiana tabacum
transcription factor Myb1. myb1. TMV-inducible Myb homolog; contains helix-turn-helix
motif; contains redox-sensitive cysteine.
BAA81736.1 AB029165 Glycine max
GmMYB29B2.
BAA81731.1 AB029160 Glycine max
GmMYB29A1.
CAA72218.1 Y11415 Oryza sativa
myb.

CAA67000.1 X98355 Oryza sativa activator of alpha-amylase gene promoter, transcription factor GAMyb. Gam1. Myb-like; expression is regulated by gibberellin. AAK19611.1 AF336278 Gossypium hirsutum BNLGHi233. bnlghi6233. similar to myb. CAA67575.1 X99134 Lycopersicon esculentum transcription factor. THM6. myb-related. Lycopersicon esculentum CAA64614.1 X95296 transcription factor. THM27. myb-related. Lolium temulentum AAD31395.1 AF114162 gibberellin MYB transcription factor. GAMyb. R2/R3-MYB. BAA93038.1 AP001552 Oryza sativa EST AU082058(C12976) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana putative transcription factor (AF062916). Hordeum vulgare AAG22863.1 AY008692 transcription factor GAMyb. Gamyb. BAA96421.1 AB044084 Triticum aestivum transcription activator for gibberellin response. GAMyb protein. Ta-GAMyb. CAA61021.1 X87690 Hordeum vulgare transcriptional activator of alpha-amylase gene promoter. GAMyb protein. Gam1. CAA66952.1 X98308 Lycopersicon esculentum THM18. myb-related transcription factor. AAC49394.1 U57002 Zea mays P protein. P. allele P-wr; Myb-like transcriptional regulator with a putative zinc-finger at the C-terminal. BAA88222.1 AB028650 Nicotiana tabacum myb-related transcription factor LBM2. lbm2. AAG36774.1 AF210616 Zea mays P2 protein. P2. myb-like transcriptional factor; similar to Zea mays P gene. AAA33500.1 M73028 Zea mays myb-like transcription factor. P. CAC19439.1 AJ237661 Oryza sativa Myb factor protein. myb. CAB40189.1 AJ133638 Avena sativa transcriptional activator. myb protein. gamyb. AAK19619.1 AF336286 Gossypium hirsutum GHMYB9. ghmyb9. similar to myb. AAC04720.1 AF034134 Gossypium hirsutum putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-O. similar to MYB A encoded by GenBank Accession Number L04497. AAC04716.1 AF034130 Gossypium hirsutum putative MYB-like transcription factor. MYB-like DNA-binding domain protein. Cmy-D. similar to MYB A encoded by GenBank Accession Number L04497.

AAG28526.1 AF198499 Nicotiana tabacum anther-specific myb-related protein 1. mybAS1. NtMYBAS1; contains N-terminal R2, R3 myb domain repeats similar to c-myb. Petunia x hybrida CAA78388.1 Z13998 DNA-binding protein; transcriptional activator. protein 3. myb.Ph3. related to animal myb proto-oncoproteins. Zea mays AAA33482.1 M37153 c1 locus myb homologue; putative. AAK09327.1 AF320614 Zea mays activates anthocyanin transcription. anthocyanin regulatory C1. c1. transcription factor. Zea mays AAK09326.1 AF320613 activates anthocyanin transcription. anthocyanin regulatory C1. c1. transcription factor. **SEO ID NO: 687** BAA92972.1 AP001551 Oryza sativa ESTs AU056183(S20356), AU056881(S20950) correspond to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 4 BAC clone F6I18; putative protein kinase. (AL022198). BAA83689.1 AB011968 Oryza sativa OsPK7. OsPK7. protein kinase. BAA83688.1 AB011967 Oryza sativa OsPK4. OsPK4. protein kinase. AAF22219.1 AF141378 Zea mays protein kinase PK4. ZmPK4. BAA34675.1 AB011670 Triticum aestivum wpk4 protein kinase. wpk4. CAA73068.1 Y12465 Sorghum bicolor serine/threonine kinase. SNFL2. Sorghum bicolor CAA73067.1 Y12464 serine/threonine kinase. SNFL1. BAA92970.1 AP001551 Oryza sativa Similar to Arabidopsis thaliana chromosome 4 BAC clone F28A21; putative protein kinase. (AL035526). CAA74646.1 Y14274 Sorghum bicolor putative serine/threonine protein kinase. SNFL3. AAD31900.1 AF145482 Mesembryanthemum crystallinum putative serine/threonine protein kinase. AAB62693.1 AF004947 Oryza sativa protein kinase. BAA96628.1 AP002482 Oryza sativa ESTs D41739(S4522), AU055999(S20214), AU057588(S21592 correspond to a region of the predicted gene. Similar to Sorghum bicolor serine/threonine kinase (Y12465).

AAD23582.1 AF128443 Glycine max
probably involved in plant stress responses possibly regulates gene expression. SNF-1-like
serine/threonine protein kinase. expressed in nodules, roots and leaves.
BAA05649.1 D26602 Nicotiana tabacum
protein kinase.
CAA71142.1 Y10036 Cucumis sativus
SNF1-related protein kinase.
AAC99329.1 AF062479 Oryza sativa
protein kinase SNF1. Snf1. similar to yeast SNF1.
CAA65244.1 X95997 Solanum tuberosum
SNF1-related protein kinase. PKIN1.
CAA57898.1 X82548 Hordeum vulgare
SNF1-related protein kinase. BKIN2.
CAA07813.1 AJ007990 Hordeum vulgare
SnRK1-type protein kinase. kin12a.
CAA46556.1 X65606 Hordeum vulgare
protein kinase. BKIN12.
AAB05457.1 U55768 Oryza sativa
SNF1-related protein kinase. RSk1. Ser/Thr protein kinase homolog.
CAA46554.1 X65604 Hordeum vulgare
protein kinase. BKIN12.
AAD00239.1 U73938 Nicotiana tabacum
protein kinase. PK11-C1. PK11-C1. induced at the transcriptional level by the abscicic acid
plant hormone; similar to serine/threonine protein kinase.
AAC69450.1 AF032465 Nicotiana tabacum
putative serine/threonine protein kinase. WAPK.
AAD00240.1 U73939 Nicotiana tabacum
protein kinase. PK11-C5. PK11-C5. induced at the transcriptional level by the abscicic acid
plant hormone; similar to serine/threonine protein kinase.
BAA13608.1 D88399 Oryza sativa
serine-threonine kinase. endosperm kinase. REK.
AAA34017.1 L19360 Glycine max
protein kinase 2. SPK-2. putative.
AAG60195.1 AC084763 Oryza sativa
protein kinase REK. OSJNBa0027P10.6.
AAA33004.1 L12394 Brassica napus
serine/threonine protein kination. serine/threonine protein kinase. BSK2. putative.
BAA19573.1 AB002109 Oryza sativa
protein kinase. a novel protein kinase.
AAA33979.1 L01453 Glycine max
protein phosphorylation, regulatory protein. protein kinase. SPK-1. putative.
AAA33003.1 L12393 Brassica napus
protein kination. serine/threonine protein kinase. BSK1. putative.

AAB68962.1 L38855 Glycine max
protein kinase. SPK-4.
AAB68961.1 L19361 Glycine max
protein kinase 3. SPK-3. putative.
AAB58348.1 U29095 Triticum aestivum
serine-threonine protein kinase. TaPK3.
AAF27340.1 AF186020 Vicia faba
abscisic acid-activated protein kinase. AAPK.
AAA96325.1 M94726 Triticum aestivum
protein kinase. abscisic acid inducible.
CAA81443.1 Z26846 Mesembryanthemum crystallinum
protein kinase. MCPK9.
AAG31326.1 AF178575 Vitis vinifera
putative serine/threonine kinase GDBrPK. GDBrPK. similar to SNF protein kinase.
CAA06503.1 AJ005373 Craterostigma plantagineum
protein kinase. cppk1.
AAF21062.1 AF216527 Dunaliella tertiolecta
calcium-dependent protein kinase. CPK1; CDPK.
CAA89202.1 Z49233 Chlamydomonas eugametos
calcium-stimulated protein kinase.
SEQ ID NO: 689
AAC49826.1 U71604 Catharanthus roseus
involved in the second to last step in vindoline biosynthesis. desacetoxyvindoline 4-
hydroxylase. CRSD4H. 2-oxoglutarate dependent dioxygenase.
AAB97311.1 AF008597 Catharanthus roseus
desacetoxyvindoline-4-hydroxylase. CRSD4H. 2-oxoglutarate dependent dioxygenase;
involved in the second to last step in vindoline biosynthesis.
AAC49827.1 U71605 Catharanthus roseus
involved in the second to last step in vindoline biosynthesis. desacetoxyvindoline 4-
hydroxylase. CRSD4H. 2-oxoglutarate dependent dioxygenase.
BAA37127.1 AB012203 Lactuca sativa
2-oxoglutarate-dependent dioxygenase. gibberelin 20-oxidase. Ls20ox1.
BAA95828.1 AP002069 Oryza sativa
ESTs D47168(S12332),D46350(S10967) correspond to a region of the predicted gene.
Similar to Prunus armeniaca ethylene-forming-enzyme-like dioxygenase. (U97530).
AAD56580.1 AF184273 Daucus carota
leucoanthocyanidin dioxygenase 1. LDOX1. 2-oxoglutarate dependent dioxygenase.
AAB39995.1 U82432 Dianthus caryophyllus
anthocyanidin synthase. allele: S; 2-oxoglutarat-dependent dioxygenase.
AAD56581.1 AF184274 Daucus carota
leucoanthocyanidin dioxygenase 2. LDOX. 2-oxoglutarate dependent dioxygenase.
SEQ ID NO: 691

AAA34002.1 M67449 Glycine max
protein kinase. PK6.
CAC09580.1 AJ298992 Fagus sylvatica
Abscisic acid (ABA) and calcium induced protein kinase. protein kinase (PK). pk1.
AAK11734.1 AY027437 Arachis hypogaea
serine/threonine/tyrosine kinase.
BAB16918.1 AP002863 Oryza sativa
putative protein kinase. P0005A05.22.
CAA06334.1 AJ005077 Lycopersicon esculentum
protein kinase. TCTR2 protein. TCTR2.
AAD10057.1 AF110519 Lycopersicon esculentum
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit ripening inducible CTR1-like protein kinase; TCTR1v.
AAD10056.1 AF110518 Lycopersicon esculentum
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit ripening inducible CTR1-like protein kinase; TCTR1.
CAA73722.1 Y13273 Lycopersicon esculentum
putative protein kinase.
AAD46406.1 AF096250 Lycopersicon esculentum
ethylene-responsive protein kinase TCTR1. ER50. serine/threonine kinase; similar to
Arabidopsis thaliana negative regulator of the ethylene response pathway encoded by GenBank Accession Number L08789.
AAG31141.1 AF305911 Oryza sativa
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.
AAG31142.1 AF305912 Hordeum vulgare
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.
AAK30005.1 AY029067 Rosa hybrid cultivar
CTR2 protein kinase.
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192).
AAF91323.1 AF244889 Glycine max
receptor-like protein kinase 2. RLK2. GmRLK2.
AAF91324.1 AF244890 Glycine max
receptor-like protein kinase 3. RLK3. GmRLK3.
AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.
BAB39409.1 AP002901 Oryza sativa
putative protein kinase. P0456F08.9. contains EST C23560(R0290).
AAF91322.1 AF244888 Glycine max
receptor-like protein kinase 1. RLK1. GmRLK1.

BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAK16409.1 AF320086 Zea mays
serine threonine kinase 1. stk1. expressed in mature tassel.
BAA06538.1 D31737 Nicotiana tabacum
protein-serine/threonine kinase.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs
AU056701(S20808),AU056702(S20808).
CAB54520.1 AJ238845 Brassica napus
putative role in cell cycle control. MAP3K epsilon 1 protein kinase. MAP3Ke1.
CAA97692.1 Z73295 Catharanthus roseus
receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser.
Mechanism: autophosphorylation in cis.
CAA08995.1 AJ010091 Brassica napus
MAP3K alpha 1 protein kinase. MAP3K alpha 1.
BAB40094.1 AP003210 Oryza sativa
putative receptor protein kinase. OSJNBa0010K01.7.
CAB51834.1 00069 Oryza sativa
11332.5. contains eukaryotic protein kinase domain PF.
BAB40021.1 AP003021 Oryza sativa
putative wall-associated kinase 2. P0503E05.25. contains EST C24950(S16264).
AAF43496.1 AF131222 Lophopyrum elongatum
protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and ABA treatment.
AAK11674.1 AF339747 Lophopyrum elongatum protein kinase. ESI47.
•
S-receptor kinase, protein contains an immunoglobulin-like domain. BAB40010.1 AP003021 Oryza sativa
BAB40010.1 AP003021 Oryza sativa putative wall-associated kinase 2. P0503E05.12.
AAC36318.1 AF053127 Malus x domestica
leucine-rich receptor-like protein kinase. LRPKm1.
-
receptor protein kinase. IRK1. BAA23676.1 AB000970 Brassica rapa
BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1.
· ·
putative receptor protein kinase. P0034C11.11.

BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
AAA33915.1 L27821 Oryza sativa
receptor type serine/threonine kinase. protein kinase.
BAB40081.1 AP003074 Oryza sativa
putative receptor protein kinase. OSJNBa0004G10.30.
AAD38286.1 AC007789 Oryza sativa
putative protein kinase. OSJNBa0049B20.13.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
SEQ ID NO: 692
AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate
glucosyltransferase. SGT1. SGT.
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT. BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase, LGTase.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
1'A A \$/(61') 1 Y'/'//(6') Manshat agostonta
CAA54612.1 X77462 Manihot esculenta
UTP-glucose glucosyltransferase. CGT5.
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT.
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT. BAA89008.1 AB027454 Petunia x hybrida
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT. BAA89008.1 AB027454 Petunia x hybrida anthocyanidin 3-O-glucosyltransferase. PGT8.
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT. BAA89008.1 AB027454 Petunia x hybrida anthocyanidin 3-O-glucosyltransferase. PGT8. BAB17060.1 AP002523 Oryza sativa
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT. BAA89008.1 AB027454 Petunia x hybrida anthocyanidin 3-O-glucosyltransferase. PGT8. BAB17060.1 AP002523 Oryza sativa putative glucosyl transferase. P0013F10.6.
UTP-glucose glucosyltransferase. CGT5. BAA19155.1 AB000623 Nicotiana tabacum glucosyl transferase. JIGT. BAA89008.1 AB027454 Petunia x hybrida anthocyanidin 3-O-glucosyltransferase. PGT8. BAB17060.1 AP002523 Oryza sativa

AAK16178.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.5.
AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
BAB17061.1 AP002523 Oryza sativa
putative glucosyl transferase. P0013F10.7. contains EST C73149(E2992).
CAA30761.1 X07940 Zea mays
UDPglucose flavonoid glycosyl-transferase. Bz-McC.
AAK16410.1 AF320086 Zea mays
UDPG-flavonoid 3-O-glucosyl transferase. bz.
CAA31855.1 X13500 Zea mays
UDPglucose:flavonol 3-0-glucosyltransferase.
BAB17059.1 AP002523 Oryza sativa
putative glucosyl transferase. P0013F10.5.
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
AAB86473.1 AF028237 Ipomoea purpurea
UDP glucose: flavonoid 3-O-glucosyltransferase. UF3GT-FL1.
CAA30760.1 X07937 Zea mays
UDPglucose flavonoid glycosyl transferase. Bz-W22.
BAB41021.1 AB047094 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT1.
BAB41019.1 AB047092 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT1.
BAB41025.1 AB047098 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT1.
AAD55985.1 AF165148 Petunia x hybrida
catalyzes the penultimate step of flavonol glucosylgalactoside biosynthesis from UDP-
galactose and flavonol aglycones in petunia pollen. UDP-galactose:flavonol 3-O-
galactosyltransferase. F3galtase.
BAB41018.1 AB047091 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT2. The gene originated in one of the
parents V. vinifera cv. Centennial.

BAB41017.1 AB047090 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT1. The gene was derived from one of the parents V. labruscana cv. Ishiharawase.
AAK16181.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.16.
BAB41023.1 AB047096 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT1.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
CAA54614.1 X77464 Manihot esculenta
UTP-glucose glucosyltransferase. CGT7.
AAB81682.1 AF000371 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
AAB81683.1 AF000372 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
BAB41024.1 AB047097 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT2.
CAA54558.1 X77369 Solanum melongena
glycosyl transferase. GT.
BAB41026.1 AB047099 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT2.
BAB41020.1 AB047093 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT2.
BAB41022.1 AB047095 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT2.
BAA19659.1 AB002818 Perilla frutescens
flavonoid 3-O-glucosyltransferase. UDP glucose.
AAG25643.1 AF303396 Phaseolus vulgaris
UDP-glucosyltransferase HRA25. putative; defense associated.
SEQ ID NO: 694
BAB40923.1 AB059401 Oryza sativa
putative selenium binding protein. Os SBP.
SEQ ID NO: 695
AAD26942.1 AF119050 Datisca glomerata
zinc-finger protein 1. zfp1. DgZFP1.
BAA05079.1 D26086 Petunia x hybrida
zinc-finger protein.
AAB39638.1 U68763 Glycine max
putative transcription factor. SCOF-1. scof-1. zinc-finger protein.
CAB77055.1 Y18788 Medicago sativa
putative TFIIIA (or kruppel)-like zinc finger protein.
AAC06243.1 AF053077 Nicotiana tabacum
transcription factor. osmotic stress-induced zinc-finger protein. zfp.

BAA05077.1	D26084	Petunia x hybrida
zinc-finger DN	A binding p	orotein.
BAA05076.1	D26083	Petunia x hybrida
zinc-finger DN	A binding p	orotein.
AAB53260.1	U76554	Brassica rapa
transcription fa	ictor. zinc-fi	nger protein-1. BR42.
BAA05078.1	D26085	Petunia x hybrida
zinc-finger DN	A binding p	protein.
AAB53261.1	U76555	Brassica rapa
zinc-finger pro	tein BcZFP!	1. BcZFP1(3-2z).
AAK01713.1	AF332876	Oryza sativa
zinc finger tran	scription fac	ctor ZF1.
BAA21920.1		Petunia x hybrida
ZPT2-11. C2H	2 zinc finge	r protein, 2finger.
BAA21922.1		
ZPT2-13. C2H	2 zinc finge	r protein, 2finger.
		Petunia x hybrida
		s(2) zinc finger protein, 3 fingers.
BAA21927.1		Petunia x hybrida
ZPT3-3. C2H2	zinc finger	protein, 3 finger.
		Petunia x hybrida
C2H2 zinc-fing	ger protein Z	ZPT3-3. ZPT3-3.
BAA96070.1		
C2H2 zinc-fing	ger protein Z	ZPT2-10. PEThy;ZPT2-10.
BAA21919.1		Petunia x hybrida
ZPT2-10. C2H	2 zinc finge	r protein, 2 finger.
BAA19114.1	AB000455	Petunia x hybrida
		s(2) zinc finger protein, 4 fingers.
BAA21921.1		Petunia x hybrida
ZPT2-12. C2H	2 zinc finge	r protein, 2 finger.
BAA21928.1		
ZPT4-4. C2H2	zinc finger	protein, 4 finger.
CAA60828.1		Pisum sativum
putative zinc fi	nger proteir	ı .
BAA21925.1		
ZPT2-8. C2H2	zinc finger	protein, 2 finger.
		Petunia x hybrida
		s(2) zinc finger protein, 2 fingers.
		Petunia x hybrida
		c finger protein, 4 finger.
BAA21924.1		Petunia x hybrida
		protein, 2finger.
		<u> </u>

BAA21923.1 AB006601 Petunia x hybrida
ZPT2-14. C2H2 zinc finger protein, 2 finger.
BAA21926.1 AB006604 Petunia x hybrida
ZPT2-9. C2H2 zinc finger protein, 2 finger.
BAA19110.1 AB000451 Petunia x hybrida
PEThy; ZPT2-5. Cys(2) His(2) zinc finger protein, 2 fingers.
BAA19113.1 AB000454 Petunia x hybrida
PEThy; ZPT3-2. Cys(2) His(2) zinc finger protein, 3 fingers.
SEQ ID NO: 702
AAK29419.1 AF348319 Zea mays
TERMINAL EAR1. tel. RNA-binding protein; 3 putative RRM motifs; similar to
Schizosaccharomyces pombe Mei2 and Arabidopsis AML1; te1 cDNA sequence is presented
in GenBank Accession Number AF047852.
CAA57551.1 X82030 Phaseolus vulgaris
chloroplast RNA binding protein. RNP1.
CAA66479.1 X97905 Vicia faba
RNA- or ssDNA-binding protein.
CAC01237.1 AJ292767 Nicotiana plumbaginifolia
nuclear RNA binding protein. RNA Binding Protein 45. rbp45.
AAF66823.1 AF190655 Nicotiana tabacum
poly(A)-binding protein. PABP.
AAK30205.1 AF349964 Daucus carota
poly(A)-binding protein. Translin1P.
AAG59664.1 AC084319 Oryza sativa
putative RNA binding protein. OSJNBa0004B24.1.
AAB38974.1 U81318 Triticum aestivum
poly(A)-binding protein. wheatpab.
CAA81127.1 Z26042 Anemia phyllitidis
Binding to the poly(A)-tail of eukaryotic mRNAs. poly(A)-mRNA binding protein.
AAA79045.1 U34742 Spinacia oleracea
24 kDa RNA binding protein.
AAC39368.1 AF043297 Chlamydomonas reinhardtii
poly(A) binding protein RB47. PABP.
AAF63202.1 AF240679 Cucumis sativus
poly(A)-binding protein.
CAA11894.1 AJ224325 Hordeum vulgare
nucleic acid-binding protein. cp33Hv.
AAF66825.1 AF190657 Nicotiana tabacum
poly(A)-binding protein. PABP.
CAA06469.1 AJ005286 Hordeum vulgare
nucleic acid-binding protein. cp31AHv protein.
SEQ ID NO: 709

A A DOCCAC 1 TIMEDAD DI 1 1 1
AAB36546.1 U77940 Phaseolus vulgaris
polyubiquitin. expression is regulated by heavy metal stress, UV, virus infection, heat shock
and wounding treatment, this suggests that ubiquitin plays a role in plant defense.
SEQ ID NO: 714 CAA61946.1 X89828 Pisum sativum
fructose-1,6-bisphosphate aldolase. AAB61592.1 AF003124 Mesembryanthemum crystallinum
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fructose-biphosphate aldolase. CAB77243.2 AJ133146 Persea americana
glycolytic enzyme, sixth step in glycolysis. fructose-bisphosphate aldolase. alf.
BAA08845.1 D50307 Oryza sativa
aldolase C-1.
BAA08830.1 D50301 Oryza sativa aldolase C-1.
CAA46649.1 X65742 Spinacia oleracea
fructose-bisphosphate aldolase.
BAA02729.1 D13512 Oryza sativa
cytoplasmic aldolase.
AAG21429.1 AF308587 Fragaria x ananassa
cytosolic aldolase. SCA1.
CAA37290.1 X53130 Oryza sativa
fructose-diphosphate aldolase (AA 1-358).
CAA31366.1 X12872 Zea mays
fructose bisphosphate aldolase.
AAA33435.1 M16220 Zea mays
aldolase.
CAA61947.1 X89829 Pisum sativum
fructose-1,6-bisphosphate aldolase.
CAA06308.1 AJ005041 Cicer arietinum
cytosolic fructose-1,6-bisphosphate aldolase.
AAK19324.1 AF329673 Dunaliella salina
fructose-bisphosphate aldolase isoenzyme 1. salt-induced.
CAA71408.1 Y10380 Solanum tuberosum
homologous to plastidic aldolases.
BAA77603.1 AB027002 Nicotiana paniculata
plastidic aldolase.
BAA77604.1 AB027001 Nicotiana paniculata
plastidic aldolase NPALDP1. NpAldP1.
AAA33642.1 M97476 Pisum sativum
aldolase.
AAA33643.1 M97477 Pisum sativum
aldolase.

BAA02730.1 D13513 Oryza sativa
chloroplastic aldolase.
AAF74220.1 AF216582 Avena sativa
fructose 1,6-bisphosphate aldolase precursor.
CAA47293.1 X66814 Spinacia oleracea
fructose-bisphosphate aldolase.
AAK19325.1 AF329674 Dunaliella salina
fructose-bisphosphate aldolase isoenzyme 2. salt-induced.
CAB46520.1 AJ243524 Phleum pratense
sixth step in glycolysis. putative fructose-bisphosphate aldolase.
CAA09669.1 AJ011516 Scherffelia dubia
fructose-bisphosphate aldolase.
CAA49590.1 X69969 Chlamydomonas reinhardtii
fructose-bisphosphate aldolase. ALDCHL.
AAC60574.1 S72951 Chloroplast Chlamydomonas reinhardtii
fructosediphophate aldolase. fructosediphophate aldolase. This sequence comes from Fig. 4.
AAB70542.1 AF017362 Oryza sativa
aldolase.
BAA76430.1 AB025002 Cicer arietinum
fructose-bisphosphate aldolase.
AAD20818.1 AF107590 Dendrobium grex Madame Thong-In
putative fructose-bisphosphate aldolase. otg11.
BAA11395.1 D78500 Brassica rapa
putative aldolase. Sequence homologous to cytoplasmic aldolase of rice (D13512).
BAA78593.1 AU066535 Chlamydomonas sp. HS-5
fructose-bisphosphate aldolase precursor. NaCl inducible.
CAC34412.1 Y18576 Flaveria trinervia
fructose-bisphosphate aldolase. alf.
SEQ ID NO: 715
AAK07429.1 AF321287 Musa acuminata
beta-glucosidase.
AAC69619.1 AF072736 Pinus contorta
beta-glucosidase.
AAF04007.1 AF163097 Dalbergia cochinchinensis
beta-fucosidase beta-glucosidase. dalcochinin 8'-O-beta-glucoside beta-glucosidase precursor.
BGLU1. rotenoid beta-glucosidase.
AAA93032.1 U50201 Prunus serotina
hydrolysis of the cyanogenic glucoside (R)-prunasin. prunasin hydrolase precursor. located in
protein bodies of Prunus seeds; encodes 8 putative N-glycosylation sites (N-X-S/T); encodes
NEP and ITENG motifs characteristic of the BGA family of beta-glucosidases.
BAA78708.1 AB003089 Polygonum tinctorium
beta-glucosidase.

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AAA91166.1 U39228 Prunus avium
beta-glucosidase.
BAA11831.1 D83177 Costus speciosus
saponin metabolite. furostanol glycoside 26-O-beta-glucosidase (F26G). functional expression
in E. coli; one of the F26G isozymes.
AAF34650.1 AF221526 Prunus serotina
hydrolysis of the cyanogenic glucoside (R)-prunasin. prunasin hydrolase isoform PHA
precursor. beta-glucosidase; contains 6 potential N-glycosylation sites (N-X-S/T); glycosyl
hydrolase family 1 member.
AAG25897.1 AF170087 Cucurbita pepo
silverleaf whitefly-induced protein 3. SLW3. similar to beta-glucosidase.
AAG00614.1 AF293849 Secale cereale
beta-glucosidase.
AAB22162.1 S35175 Manihot esculenta
linamarase. linamarase. beta-glucosidase; Method: conceptual translation with partial peptide
sequencing; This sequence comes from Fig. 4.
AAF03675.1 AF149311 Rauvolfia serpentina
hydrolyses the glucoalkaloid raucaffricine. raucaffricine-O-beta-D-glucosidase. beta
glucosidase; RG; part of the Ajmaline biosynthesis pathway; belongs to family 1 of the
glucosyl hydrolases. AAA87339.1 L41869 Hordeum vulgare
beta-glucosidase. BGQ60. expression specific to starchy endosperm of seed.
AAC49177.1 U33817 Sorghum bicolor
beta-glucosidase, catalyzes the hydrolysis of the cyanogenic beta-glucoside dhurrin. dhurrinase.
CAA64442.1 X94986 Manihot esculenta
beta glucosidase. bglA.
AAD02839.1 AF082991 Avena sativa
beta-D-glucosidase beta subunit precursor. P60b. avenacosidase.
AAD09850.1 U44087 Zea mays
beta-D-glucosidase precursor. glu2. product subunit structure: autodimer of 58.4 kDa
monomers Allele: glu2-B73.
AAD10503.1 U33816 Zea mays
functions in defense of young plant parts against pests via the production of hydroxamic acids
from hydroxamic acid glucosides. beta-D-glucosidase.
AAB03266.1 U44773 Zea mays
beta-D-glucosidase. glu1. autodimer of 58.4 kD monomers.
AAA65946.1 U25157 Zea mays
functions in defense of young plant parts against pests via the production of hydroxamic acids
from hydroxamic acid glucosides. beta-D-glucosidase.
CAA52293.1 X74217 Zea mays
beta-glucosidase, p60.1.

AAF28800.1 AF112888 Catharanthus roseus
plays a role in secondary metabolism by hydrolyzing strictosidine to cathenamine during indole alkaloid biosynthesis. strictosidine beta-glucosidase. localized in the endoplasmic reticulum.
CAA40057.1 X56733 Trifolium repens
beta-glucosidase. Li.
CAA40058.1 X56734 Trifolium repens
beta-glucosidase. non-cyanogenic.
CAA55196.1 X78433 Avena sativa
beta-D-glucosidase.
CAA79989.2 Z21977 Brassica napus
beta thioglucosidase. myrosinase, thioglucoside glucohydrolase. Myr1.Bn1.
AAB71381.1 U95298 Manihot esculenta
linamarase. pLIN-GEN. beta-glucosidase.
CAA57913.1 X82577 Brassica napus
beta-glucosidase. bgl.
AAB38784.1 U72154 Brassica nigra
beta-glucosidase. psr3.1. PSR3.1; phosphate-starvation responsive enzyme.
AAF34651.1 AF221527 Prunus serotina
putative prunasin hydrolase precursor. beta-glucosidase; glycosyl hydrolase family 1 member.
AAA84906.1 U28047 Oryza sativa
catalyzes the release of either giberellin or cyanogenic substances from their glucoconjugates. beta glucosidase. beta-D-glucoside glucohydrolase; dimer of 60 kDa monomers; localized in the plastid.
CAC08209.1 AJ005950 Cicer arietinum beta-glucosidase.
SEQ ID NO: 718
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
BAA36423.1 AB013598 Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate
glucosyltransferase. SGT1. SGT.
BAA36422.1 AB013597 Perilla frutescens
UDP-glucose:anthocyanin 5-O-glucosyltransferase homologue. PF3R6.

BAB07962.1 AP002524 Oryza sativa
putative anthocyanin 5-O-glucosyltransferase. P0406H10.16. contains ESTs
AU067881(C10481),AU067882(C10481).
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT.
AAK16178.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.5.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
AAK16181.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.16.
AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
AAB81683.1 AF000372 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
BAB41017.1 AB047090 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT1. The gene was derived from one
of the parents V. labruscana cv. Ishiharawase. AAB81682.1 AF000371 Vitis vinifera
UDP glucose:flavonoid 3-o-glucosyltransferase.
BAB41022.1 AB047095 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT2.
BAB41020.1 AB047093 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT2.
BAB41021.1 AB047094 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT1.
BAB41019.1 AB047092 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT1.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
BAB41025.1 AB047098 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT1.

BAB41023.1 AB047096 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT1.
BAA90787.1 AB038248 Ipomoea batatas
UDP glucose: flavonoid 3-O-glucosyltransferase. uf3gt.
BAA19659.1 AB002818 Perilla frutescens
flavonoid 3-O-glucosyltransferase. UDP glucose.
BAB41018.1 AB047091 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT2. The gene originated in one of the parents V. vinifera cv. Centennial.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
BAB41024.1 AB047097 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT2.
BAB41026.1 AB047099 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT2.
CAA31855.1 X13500 Zea mays
UDPglucose:flavonol 3-0-glucosyltransferase.
AAB86473.1 AF028237 Ipomoea purpurea
UDP glucose: flavonoid 3-O-glucosyltransferase. UF3GT-FL1.
CAA54614.1 X77464 Manihot esculenta
UTP-glucose glucosyltransferase. CGT7.
SEQ ID NO: 719
AAC24195.1 AF020425 Nicotiana tabacum
calmodulin binding protein. glutamate decarboxylase isozyme 1. NtGAD1. calcium-calmodulin-dependent enzyme.
AAK18620.1 AF352732 Nicotiana tabacum
converts glutamate to gamma-aminobutyric acid. glutamate decarboxylase isozyme 3. GAD; GAD3; NtGAD3; calcium/calmodulin-dependent enzyme.
AAB40608.1 U54774 Nicotiana tabacum
glutamate decarboxylase. NtGAD1. calmodulin regulated enzyme; calmodulin-binding protein.
AAA33710.1 L16977 Petunia x hybrida
glutamate decarboxylase. gad.
AAA33709.1 L16797 Petunia x hybrida
glutamate decarboxylase. gad.
AAC39483.1 AF020424 Nicotiana tabacum
glutamate decarboxylase isozyme 2. NtGAD2. calcium-calmodulin-dependent enzyme.
BAB32870.1 AB056062 Oryza sativa
glutamate decarboxylase. GAD.
BAB32868.1 AB056060 Oryza sativa
glutamate decarboxylase. GAD.

CAA56812.1 X80840 Lycopersicon esculentum homology to pyroxidal-5'-phosphate-dependant glutamate decarboxylases; putative start codon. BAB32871.1 AB056063 Oryza sativa glutamate decarboxylase. GAD. BAB32869.1 AB056061 Oryza sativa glutamate decarboxylase. GAD. CAA50719.1 X71900 Lycopersicon esculentum histidine decarboxylase. hdc. pyridoxal 5'-phosphate dependant. **SEO ID NO: 720** BAA92713.1 AP001389 Oryza sativa ESTs AU033035(S1515),D39871(S1515) correspond to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome II BAC F22D22 genomic sequence; putative glucan synthase (AC006223). AAD25952.1 AF085717 Gossypium hirsutum putative callose synthase catalytic subunit. CFL1. cotton FKS1-like protein; similar to Saccharomyces cerevisiae beta-1,3-glucan synthase subunit FKS1. **SEO ID NO: 721** CAB55396.1 AL117264 Oryza sativa zwh12.1. similar to Arabidopsis putative UDP-galactase-4-epimerase (AC007060); Method: conceptual translation with partial peptide sequencing. CAA06339.1 AJ005082 Cyamopsis tetragonoloba UDP-galactose 4-epimerase. AAA86532.1 U31544 Pisum sativum catabolism of galactose to glucose in Leloir pathway, and in galactose synthesis from glucose. UDP-galactose-4-epimerase. galE. galactowaldenase. CAA06338.1 AJ005081 Cyamopsis tetragonoloba UDP-galactose 4-epimerase. BAB40967.1 AB059568 Pisum sativum biosynthesis of UDP-D-xylose. UDP-D-glucuronate carboxy-lyase. uxs1. **SEQ ID NO: 726**

BAA88198.1 AP000837 Oryza sativa

Similar to human dimethylaniline monooxygenase (AC002376).

BAA35120.1 AB008845 Oryza sativa

NADH dependent Glutamate Synthase.

AAB41904.1 L37606 Medicago sativa

NADH-dependent glutamate synthase.

BAA88195.1 AP000837 Oryza sativa

Similar to human dimethylaniline monocygenase (AC002376).

AAB46617.1 L01660 Medicago sativa

the 3 cysteine residues in this region (amino acid residues 1246-1257) may serve to coordinate the [3Fe-4S] cluster that is probably found in this protein. See Knaff et al. (1991) J. Biol. Chem.266:150. NADH-glutamate synthase. NADH-GOGAT; activity increases dramatically during nodule development; the 3 cysteine residues in this region may serve to coordinate the [3Fe-4S] cluster that is probably found in this protein. See Knaff et al. (1991) J. Biol. Chem.266:15080-15084.

SEO ID NO: 728

AAG43550.1 AF211532 Nicotiana tabacum

Avr9/Cf-9 rapidly elicited protein 132. ACRE132. similar to RING finger proteins.

BAA96875.1 AB045121 Oryza sativa

RING finger 1. RRF1.

AAK00436.1 AC060755 Oryza sativa

putative zinc finger protein. OSJNBa0003O19.23.

BAA78746.1 AB023482 Oryza sativa

Similar to Arabidopsis thaliana RING-H2 finger protein RHX1a mRNA, partial cds.(AF079184).

CAA74911.1 Y14573 Hordeum vulgare

ring finger protein. putative.

AAG46117.1 AC073166 Oryza sativa

putative ring finger protein. OSJNBb0064P21.7.

BAA85438.1 AP000616 Oryza sativa

similar to RING-H2 finger protein RHA1a (AF078683).

BAA77204.1 AB026262 Cicer arietinum

ring finger protein.

SEQ ID NO: 730

AAA86424.1 U44386 Lycopersicon esculentum

heat shock protein. TFHS1. similar to protein encoded by the arg2 gene in mung bean, encoded by Genbank Accession Number D14411.

SEO ID NO: 731

CAA06756.1 AJ005899 Nicotiana tabacum

G subunit. G subunit of Vacuolar-type H+-ATPase. vag1.

CAA06757.1 AJ005900 Nicotiana tabacum

Subunit G of vacuolar-type H+-ATPase. vag2. vag2.

AAD56039.1 AF184068 Citrus limon

vacuolar membrane ATPase subunit G. LVMA10. V-ATPase VMA10.

SEQ ID NO: 737

AAF69008.1 AF257779 Oryza sativa

stress-inducible protein. OsSI1.

SEO ID NO: 739

CAC12996.1 AJ299398 Medicago truncatula

putative auxin import. putative AUX1-like permease. lax2.

AAF21982.1	•
AUX1-like pr	
AAG17171.1	
	11-like permease, pax5.
CAC12995.1	• • • • • • • • • • • • • • • • • • • •
	import, putative AUX1-like permease, lax1.
CAC12997.1	
putative auxin	n import, putative AUX1-like permease, lax3.
CAB65535.1	AJ011794 Zea mays
AUX1 protein	ı. auxl.
	SEQ ID NO: 740
CAA65269.1	X96406 Solanum tuberosum
13-lipoxygena	ase.
AAB65767.1	U37840 Lycopersicon esculentum
lipoxygenase.	loxD. wound, systemin and methyl-jasmonate induced.
BAA03102.1	D14000 Oryza sativa
lipoxygenase.	lox2osPil.
AAC12951.1	U56406 Hordeum vulgare
methyljasmon	nate-inducible lipoxygenase 2.
CAB94852.1	AJ404331 Prunus dulcis
hydroperoxyd	lation of polyunsaturated fatty acids. lipoxygenase. lox.
AAG21691.1	AY008278 Lycopersicon esculentum
lipoxygenase.	oxido-reductase.
AAA79186.1	U36339 Cucumis sativus
lipoxygenase.	
AAB67858.1	U60200 Solanum tuberosum
lipoxygenase.	POTLX-1. expressed during early tuberization.
CAA64765.1	X95512 Solanum tuberosum
lipoxygenase.	·
CAB83038.1	AJ271161 Cucumis sativus
oxygenase. lip	poxygenase-9. lox9.
CAA58859.1	X84040 Nicotiana tabacum
lipoxygenase.	Lox1.
AAB67865.1	U60202 Solanum tuberosum
lipoxygenase.	POTLX-3. expressed in ABA-treated leaves.
CAA55724.1	
lipoxygenase.	
AAB67860.1	
	. POTLX-2. expressed during early tuberization.
CAB65460.1	1 103-40 2014114111 14061024111

14 D040501 4 D000651 0 1
AAD04258.1 AF039651 Solanum tuberosum
5-lipoxygenase.
AAB81594.1 AF019613 Solanum tuberosum
lipoxygenase. plox1.
AAA33986.1 J02795 Glycine max
lipoxygenase-1. AAB67732.1 U50075 Glycine max
lipoxygenase L-5. vlxB.
CAA47717.1 X67304 Glycine max
lipoxygenase. AAB81595.1 AF019614 Solanum tuberosum
lipoxygenase. plox2.
CAA64766.1 X95513 Solanum tuberosum
lipoxygenase.
AAB31252.1 S73865 Solanum tuberosum
linoleate:oxygen oxidoreductase. linoleate:oxygen oxidoreductase, lipoxygenase, LOX. This
sequence comes from Fig. 1; lipoxygenase; LOX. AAA53184.1 U09026 Lycopersicon esculentum
lipoxygenase. loxA. AAB65766.1 U37839 Lycopersicon esculentum
• •
lipoxygenase. loxC. expressed during ripening fruit. CAA65268.1 X96405 Solanum tuberosum
• • • • • • • • • • • • • • • • • • • •
13-lipoxygenase. AAF15296.2 AF204210 Phaseolus vulgaris
AAF15296.2 AF204210 Phaseolus vulgaris lipoxygenase. LOX4.
CAA55319.1 X78581 Pisum satiyum
lipoxygenase, Lox1:Ps:3.
AAA03728.1 U04526 Glycine max
lipoxygenase. CAA34906.1 X17061 Pisum sativum
lipoxygenase (AA 1-864). CAA55318.1 X78580 Pisum sativum
lipoxygenase. Lox1:Ps:2.
BAA03042.1 D13949 Glycine max
•
lacking. lipoxygenase-2. lox2. AAA33987.1 J03211 Glycine max
lipoxygenase (EC 1.13.11.12). AAB71759.1 U84198 Pisum sativum
lipoxygenase. Lox1:Ps:1. expressed in root nodules.
AAB41272.1 U50081 Glycine max
lipoxygenase-3. CAA39604.1 X56139 Glycine max
CAA39604.1 X56139 Glycine max lipoxygenase. sc514.
nponjeonase, soult.

AAA96817.1 U26457 Glycine max
lipoxygenase. vlxC.
AAG42354.1 AF234983 Phaseolus vulgaris
lipoxygenase.
AAG18376.1 AF283894 Zantedeschia aethiopica
lipoxygenase. lox2.
AAD39093.1 AF095895 Oryza sativa
catalyzes the addition of molecular oxygen to fatty acid. lipoxygenase. CM-LOX1.
CAC04380.1 AJ293015 Pisum sativum
lipoxygenase. lox1:Ps:7.
CAA45088.1 X63525 Phaseolus vulgaris
lipoxygenase. loxA.
AAB18970.2 U76687 Phaseolus vulgaris
lipoxygenase. PvLOX2.
AAC49159.1 U36191 Glycine max
linoleate:oxygen oxidoreductase. lipoxygenase. lox7.
AAA03726.1 U04785 Glycine max
lipoxygenase.
CAA45086.1 X63521 Phaseolus vulgaris
lipoxygenase.
SEQ ID NO: 741
AAG28436.1 AF195029 Glycine max
plasma membrane Ca2+-ATPase. SCA2.
AAG28435.1 AF195028 Glycine max
plasma membrane Ca2+-ATPase. SCA1.
CAA68234.1 X99972 Brassica oleracea
calmodulin-stimulated calcium-ATPase.
AAD31896.1 AF145478 Mesembryanthemum crystallinum
calcium ATPase.
BAA90510.2 AP001111 Oryza sativa
rice EST AU030811, similar to rice Ca+2-ATPase (U82966).
AAD11618.1 AF050496 Lycopersicon esculentum
Ca2+-ATPase. LCA1B; alternative transcript.
AAD11617.1 AF050495 Lycopersicon esculentum
Ca2+-ATPase. LCA1A; alternative transcript.
AAA34138.1 M96324 Lycopersicon esculentum
The calcium ATPase is a calcium ion pump. Ca2+-ATPase. LCA1.
CAA63790.1 X93592 Dunaliella bioculata
P-type ATPase. cal. calcium pumping; CA1.
AAF73985.1 AF096871 Zea mays
calcium pump. calcium ATPase. cap1.

AAB58910.1 U82966 Oryza sativa
Ca2+-ATPase.
AAD46188.1 AF156691 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma9.
AAB17186.1 U72148 Lycopersicon esculentum
plasma membrane H+-ATPase. LHA4. plasma membrane proton pumping ATPase.
CAA47275.1 X66737 Nicotiana plumbaginifolia
plasma membrane H+-ATPase. pma4.
CAA54045.1 X76535 Solanum tuberosum
H(+)-transporting ATPase. PHA2.
AAD46186.1 AF156679 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma6.
CAA59800.1 X85805 Zea mays
H(+)-transporting ATPase. MHA-2.
BAA06629.1 D31843 Oryza sativa
plasma membrane H+-ATPase. OSA2.
AAB35314.2 S79323 Vicia faba
plasma membrane H(+)-ATPase precursor. plasma membrane H(+)-ATPase. This sequence
comes from Fig. 1; conceptual translation presented here differs from translation in
publication.
CAA59799.1 X85804 Phaseolus vulgaris
H(+)-transporting ATPase. BHA-1.
AAB41898.1 U84891 Mesembryanthemum crystallinum
plasma membrane proton pump. H+-transporting ATPase. PMA.
AAA34094.1 M80489 Nicotiana plumbaginifolia
plasma membrane H+ ATPase. pma1.
AAB84202.2 AF029256 Kosteletzkya virginica
plasma membrane proton ATPase. ATP1.
AAA34052.1 M27888 Nicotiana plumbaginifolia
H+-translocating ATPase.
AAA34173.1 M60166 Lycopersicon esculentum
H+-ATPase. LHA1.
AAA34098.1 M80490 Nicotiana plumbaginifolia
plasma membrane H+ ATPase. pma3.
AAF98344.1 AF275745 Lycopersicon esculentum
plasma membrane H+-ATPase. LHA2. P-type ion pump.
AAD55399.1 AF179442 Lycopersicon esculentum
plasma membrane H+-ATPase isoform LHA2. LHA2.
CAC29436.1 AJ310524 Vicia faba
P-type H+-ATPase. ha5. predominantly expressed in guard cells and flowers.
BAA08134.1 D45189 Zostera marina
plasma membrane H+-ATPase. zha1.
plasma memorane 11 - A11 ase. Zha1.

BAA01058.1 D10207 Oryza sativa
H-ATPase. OSA1.
CAB69824.1 AJ271439 Prunus persica
plasma membrane H+ ATPase. PPA1.
CAA54046.1 X76536 Solanum tuberosum
H(+)-transporting ATPase. PHA1.
AAB60276.1 U09989 Zea mays
H(+)-transporting ATPase. Mha1.
CAB69823.1 AJ271438 Prunus persica
plasma membrane H+ ATPase. PPA2.
AAK31799.1 AY029190 Lilium longiflorum
plasma membrane H+ ATPase. LILHA1.
BAA37150.1 AB022442 Vicia faba
p-type H+-ATPase. VHA2.
CAC29435.1 AJ310523 Vicia faba
P-type H+-ATPase. vha4. predominantly expressed in flowers.
CAB85495.1 AJ132892 Medicago truncatula
proton pump. H+-ATPase. ha1.
CAB85494.1 AJ132891 Medicago truncatula
proton pump. H+-ATPase, hal.
AAD46187.1 AF156683 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma8.
AAD29712.1 AF140499 Oryza sativa
chloroplast envelope calcium ATPase precursor.
AAK32118.1 AF308816 Hordeum vulgare
plasmalemma H+-ATPase 1.
AAG01028.1 AF289025 Cucumis sativus
plasma membrane H+-ATPase.
AAF97591.1 AF263917 Lycopersicon esculentum
plasma membrane proton ATPase. LHA8.
AAA81348.1 U38965 Vicia faba
p-type H+-ATPase. VHA2.
AAA20600.1 U08984 Zea mays
plasma-membrane H+ ATPase. Zmpma1.
AAA20601.1 U08985 Zea mays plasma-membrane H+ ATPase. Zmpma1.
AAK32119.1 AF308817 Hordeum vulgare
plasmalemma H+-ATPase 2.
SEQ ID NO: 742
AAD02548.1 AF049922 Petunia x hybrida
PGPS/D6. PGPS/D6. ER lumen protein retaining receptor homolog; putative HDEL receptor.
SEQ ID NO: 744

AAG13424.1 AC051634 Oryza sativa
putaive mitochondrial inner membrane protein. OSJNBb0018B10.5.
AAG46068.1 AC079830 Oryza sativa
putative inner mitochondrial membrane protein. OSJNBb0009F04.14.
SEQ ID NO: 746
BAA32557.1 AB017159 Daucus carota
citrate synthase. DcCS.
AAA82743.1 U19481 Citrus maxima
synthesis of citrate from oxaloacetate and acetylCoA. citrate synthase precursor. cit.
AAG28777.1 AF302906 Oryza sativa
citrate synthase. similar to putative Oryza sativa citrate synthase in GenBank Accession Number AC004521.
CAA59008.1 X84226 Nicotiana tabacum
citrate synthase. cit1.
CAA52976.1 X75082 Solanum tuberosum
mitochondrial citrate-synthase. ethanolamine ammonia-lyase.
BAA82390.1 AP000367 Oryza sativa
ESTs C96653(C10531),C96654(C10531),C28571(C61641) correspond to a region of the
predicted gene.; Similar to citrate synthetase. (AC004521).
CAA59010.1 X84228 Beta vulgaris
citrate (si)-synthase. cit1.
CAA59009.1 X84227 Populus x generosa
citrate (si)-synthase. cit1.
BAA07328.1 D38132 Cucurbita sp.
conversion of oxaloacetate to citrate in the glyoxylate cycle. glyoxysomal citrate synthase.
SEQ ID NO: 750
AAA85365.1 L42466 Picea glauca
ethylene-forming enzyme. EFE. AAC95363.1 AF104925 Solanum chacoense
2-oxoglutarate-dependent dioxygenase. SPP2. pollination and fertilization induced gene. BAA75309.1 AB023790 Ipomoea batatas
flavanone 3-hydroxyrase. f3h III.
BAA75308.1 AB023789 Ipomoea batatas
flavanone 3-hydroxyrase. f3h II.
BAA75306.1 AB023787 Ipomoea batatas
anthocyanidin synthase, ans II.
AAC48922.1 U06047 Vigna radiata
1-aminocyclopropane-1-carboxylate oxidase homolog.
SEQ ID NO: 751
BAB40010.1 AP003021 Oryza sativa
putative wall-associated kinase 2. P0503E05.12.
BAA95893.1 AP002071 Oryza sativa
Similar to Arabidopsis thaliana wak4 gene; wall-associated kinase 4. (AJ009695).

BAB40015.1 AP003021 Oryza sativa putative wall-associated kinase 1. P0503E05.18. BAA92221.1 AP001278 Oryza sativa Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative protein kinase. (AC004218). BAA87852.1 AP000816 Oryza sativa Similar to putative Ser/Thr protein kinase. (AC004218). BAB40021.1 AP003021 Oryza sativa putative wall-associated kinase 2. P0503E05.25. contains EST C24950(S16264). CAB51834.1 00069 Oryza sativa 11332.5. contains eukaryotic protein kinase domain PF. AAB09771.1 U67422 Zea mays CRINKLY4 precursor. cr4. receptor kinase homolog. BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808),AU056702(S20808). AAK11566.1 AF318490 Lycopersicon hirsutum Pto-like protein kinase E. LhirPtoE. confers resistance to bacterial speck disease. BAB39409.1 AP002901 Oryza sativa putative protein kinase. P0456F08.9. contains EST C23560(R0290). BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). BAB40022.1 AP003021 Oryza sativa putative wall-associated kinase 1. P0503E05.26. CAA97692.1 Z73295 Catharanthus roseus receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser. Mechanism: autophosphorylation in cis. BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). AAK11674.1 AF339747 Lophopyrum elongatum protein kinase. ESI47. AAF43496.1 AF131222 Lophopyrum elongatum protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and ABA treatment. BAA90808.1 AP001168 Oryza sativa Similar to putative receptor-like protein kinase (AL035679). AAF76313.1 AF220603 Lycopersicon esculentum Pto kinase. LescPth5. AAB47421.1 U59316 Lycopersicon esculentum serine/threonine protein kinase Pto. pto. allele of Pto bacterial speck disease resistance gene in tomato.

AAB47423.1 U59315 Lycopersicon pimpinellifolium
serine/threonine protein kinase Pto. Pto. bacterial speck disease resistance in tomato; disease
resistance gene.
AAC48914.1 U02271 Lycopersicon pimpinellifolium
protein kinase.
AAF76306.1 AF220602 Lycopersicon pimpinellifolium
Pto kinase.
AAG59657.1 AC084319 Oryza sativa
putative protein kinase. OSJNBa0004B24.20.
AAK11567.1 AF318491 Lycopersicon hirsutum
Pto-like protein kinase F. LhirPtoF.
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
AAG25966.1 AF302082 Nicotiana tabacum
cytokinin-regulated kinase 1. CRK1. protein kinase; transcript abundance decreases rapidly
after cytokinin treatment.
AAK11569.1 AF318493 Lycopersicon hirsutum
Pto-like protein kinase D. LhirPtoD.
AAF66615.1 AF142596 Nicotiana tabacum
LRR receptor-like protein kinase.
AAG03090.1 AC073405 Oryza sativa
Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504).
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).
BAA83373.1 AP000391 Oryza sativa
ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar
to receptor protein kinase, ERECTA (AC004484).
BAA84787.1 AP000559 Oryza sativa
ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar
to receptor protein kinase, ERECTA (AC004484).
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
AAK11568.1 AF318492 Lycopersicon hirsutum
Pto-like protein kinase B. LhirPtoB.
BAA78764.1 AB023482 Oryza sativa
ESTs C98382(C2985),D22444(C11129) correspond to a region of the predicted gene.; Similar
to Arabidopsis thaliana APK1 gene for protein tyrosine-serine-threonine kinase.(D12522).

AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.
AAK31267.1 AC079890 Oryza sativa
putative protein kinase. OSJNBb0089A17.2.
BAA94509.1 AB041503 Populus nigra
protein kinase 1. PnPK1.
BAA94510.1 AB041504 Populus nigra
protein kinase 2. PnPK2.
SEQ ID NO: 752
BAB39155.1 AB048713 Pisum sativum
SCARECROW. PsSCR.
AAG13663.1 AF263457 Zea mays
transcription factor. SCARECROW. SCR. ZmSCR.
BAA90816.1 AP001168 Oryza sativa
Similar to SCARECROW (U62798).
AAC98090.1 AF067400 Zea mays
Scl1 protein. Scl1. Scarecrow-like; similar to Zea mays sequence presented in GenBank
Accession Number T18310.
BAB39156.1 AB048714 Pisum sativum
SCARECROW. PsSCR.
SEQ ID NO: 753
AAF21901.1 AF109392 Brassica napus
ligand gated channel-like protein. glutamate receptor homolog.
SEQ ID NO: 757
CAA92821.1 Z68504 Oryza sativa
3-hydroxy-3-methylglutaryl-CoA reductase.
AAA33360.1 M74800 Hevea brasiliensis
3-hydroxy-3-methylglutaryl-coenzyme A reductase. hmgr3.
CAA70440.1 Y09238 Zea mays
3-hydroxy-3-methylglutaryl coenzyme A reductase.
AAB69727.1 U72146 Camptotheca acuminata
3-hydroxy-3-methylglutaryl coenzyme A reductase. converts HMGCoA in mevalonate
precursor for isoprenoid compounds; HMGR; hmg2; similar to protein encoded by GenBank
Accession Number L10390.
AAD08820.1 U43961 Oryza sativa
3-hydroxy-3-methylglutaryl=CoA reductase. HMGR.
AAA68965.1 U14624 Artemisia annua
3-hydroxy-3-methylglutaryl coenzyme A reductase. AHM1.
AAD47596.1 AF142473 Artemisia annua
HMG-CoA reductase. HMGR1.
AAD03789.1 U43711 Morus alba
catalyzes the final step in mevalonate pathway. 3-hydroxy-3-methylglutaryl-coenzyme A reductase. HMGR.

AAA33108.1 M96068 Catharanthus roseus
hydroxymethylglutaryl-CoA reductase. HMGR.
CAA48610.1 X68651 Raphanus sativus
hydroxymethylglutaryl-CoA reductase (NADPH). HMG1.
AAA93498.1 L01400 Solanum tuberosum
convert HMG-CoA into mevalonate. hydroxymethylglutaryl coenzyme A reductase. hmgr.
putative.
AAA68966.1 U14625 Artemisia annua
3-hydroxy-3-methylglutaryl coenzyme A reductase. AHM4.
AAB52552.1 U51986 Solanum tuberosum
HMG-CoA reductase.
CAA48611.1 X68652 Raphanus sativus
hydroxymethylglutaryl-CoA reductase (NADPH). HMG2.
BAA93631.1 AB022690 Solanum tuberosum
3-hydroxy-3-methylglutaryl coenzyme A reductase. HMG3.
AAB62581.1 U68072 Lycopersicon esculentum
3-hydroxy-3-methylglutaryl CoA reductase 2. HMG2.
AAA34169.1 M63642 Lycopersicon esculentum
3-hydroxy-3-methylglutaryl coenzyme A reductase. hmg2.
AAB69726.1 U72145 Camptotheca acuminata
converts HMGCoA to mevalonate. 3-hydroxy-3-methylglutaryl coenzyme a reductase. hmg3.
HMGR.
AAB52551.1 U51985 Solanum tuberosum
HMG-CoA reductase.
AAA33040.1 L10390 Camptotheca acuminata
3-hydroxy-3-methylglutaryl coA reductase.
AAD28179.1 AF110383 Capsicum annuum
3-hydroxy-3-methylglutaryl-coenzyme A reductase. HMGR2M. HMGR.
BAB20771.1 AB041031 Solanum tuberosum
3-hydroxy-3-methylglutaryl coenzyme A reductase. HMG2.
AAB53748.1 U95816 Oryza sativa
3-hydroxy-3-methylglutaryl-CoA reductase. HMGR.
AAC05088.1 AF038045 Gossypium hirsutum
catalyzes the synthesis of mevalonate from hmg-coA. 3-hydroxy-3-methylglutaryl-coenzyme
A reductase 1. hmg1. hmg-coA reductase 1; HMGR1.
CAA45181.1 X63649 Nicotiana sylvestris
catalyses synthesis of mevalonate. 3-hydroxy-3-methylglutaryl-coenzyme A reductase.
HMGR. endoplasmic reticulum location.
CAA38469.1 X54659 Hevea brasiliensis
hydroxymethylglutaryl-CoA reductase. HMGR1.
CAA38467.1 X54657 Hevea brasiliensis
hydroxymethylglutaryl-CoA reductase. HMGR1.

AAD38873.1 AF110382 Oryza sativa
3-hydroxy-3-methylglutaryl-coenzyme A reductase. HMGR3G. HMG-CoA reductase.
BAA36291.1 AB021862 Cucumis melo
HMG-CoA reductase. Cm-HMGR. putative.
AAB87727.1 U60452 Nicotiana tabacum
hydroxy-methylglutaryl-coenzyme A reductase. HMGR1.
AAC05089.1 AF038046 Gossypium hirsutum
catalyzes the synthesis of mevalonate from hmg-coA. 3-hydroxy-3-methylglutaryl-coenzyme
A reductase 2. hmg2. hmg-coA reductase 2; HMGR2.
AAC15475.1 AF034760 Tagetes erecta
3-hydroxy-3-methylglutaryl coenzyme A reductase.
AAC15476.1 AF034761 Tagetes erecta
3-hydroxy-3-methylglutaryl coenzyme A reductase.
AAA21720.1 L28995 Oryza sativa
conversion of hydroxymethylglutaryl coenzyme A to mevalonate. 3-hydroxy-3-methylglutaryl
coenzyme A reductase. putative.
AAA33358.1 M74798 Hevea brasiliensis
3-hydroxy-3-methylglutaryl-coenzyme A reductase. hmgr3.
AAC72378.1 AF096838 Solanum tuberosum
3-hydroxy-3-methylglutaryl coenzyme A reductase.
AAB04043.1 L40938 Lycopersicon esculentum
HMGR CoA reductase. HMGR1.
CAA38468.1 X54658 Hevea brasiliensis
hydroxymethylglutaryl-CoA reductase. HMGR2.
CAA52787.1 X74783 Lithospermum erythrorhizon
3-hydroxy-3-methyl glutaryl coenzyme A reductase. Lehmgr1.
AAD09278.1 U97683 Glycine max
catalyzes the synthesis of mevalonate, the specific precursor of all isoprenoid compounds
present in plants. 3-hydroxy-3-methylglutaryl-coenzyme A reductase. HMG-CoA reductase.
AAG43469.1 AF196964 Bixa orellana
catalyzes mevalonate synthesis from hmg-CoA. 3-hydroxy-3-methylglutaryl-coenzyme A reductase.
BAA09705.1 D63389 Cucumis sativus
3-hydroxy-3-methylglutaryl CoA reductase.
AAB47161.1 S82272 Gossypium barbadense
3-hydroxy-3-methylglutaryl coenzyme A reductase. /gene="3-hydroxy-3-methylglutaryl"
coenzyme A reductase, This sequence comes from Fig. 2; 3-hydroxy-3-methylglutaryl CoA
reductase; HMGR.
AAA33359.1 M74799 Hevea brasiliensis
3-hydroxy-3-methylglutaryl-coenzyme A reductase. hmgr3.
AAC37434.1 L34827 Solanum tuberosum
HMG-CoA reductase. hmg1 gene family.

AAC37432.1 L34825 Solanum tuberosum
HMG-CoA reductase. hmg1 gene family.
AAC37435.1 L34828 Solanum tuberosum
HMG-CoA reductase. hmg1 gene family.
AAC37433.1 L34826 Solanum tuberosum
HMG-CoA reductase. hmg1 gene family.
AAC37431.1 L34823 Solanum tuberosum
HMG-CoA reductase. hmgl gene family.
SEQ ID NO: 761
CAA96512.1 Z71980 Malus x domestica
knotted1-like homeobox protein.
BAA25921.1 AB004797 Nicotiana tabacum
NTH23. homeobox gene.
AAD09582.1 U76409 Lycopersicon esculentum
homeobox 1 protein. THox1, homeodomain protein.
AAC49918.1 AF000142 Lycopersicon esculentum
class II knotted-like homeodomain protein. LeT12.
BAA08552.1 D49704 Oryza sativa
OSH45. OSH44 transcript homeobox gene.
BAB18585.1 AB043957 Ceratopteris richardii
CRKNOX3. crknox3. knotted1-like homeodomain protein.
AAD00253.1 U76410 Lycopersicon esculentum
homeobox 2 protein. THox2. homeodomain protein.
CAA82314.1 Z29073 Brassica napus
homeodomain-containing protein. Bnhd1.
BAA77822.1 AB007628 Oryza sativa
HOS59. homeobox gene.
BAA77823.1 AB007629 Oryza sativa
HOS66. homeobox gene.
AAB81079.1 AF022390 Hordeum vulgare
knotted class 1 homeodomain protein. k. similar to the hooded gene product encoded by
GenBank Accession Number X83518; similar to the maize knotted-1 gene product encoded
by GenBank Accession Number X61308.
AAF32399.1 AF224499 Triticum aestivum
KNOTTED-1-like homeobox protein b. knox1b. KNOX1b.
BAA76750.1 AB025573 Nicotiana tabacum
KN1-type homeobox protein. NTH1.
AAF32400.1 AF224500 Triticum aestivum
KNOTTED-1-like homeobox protein d. knox1d. KNOX1d.
AAC49917.1 AF000141 Lycopersicon esculentum
class I knotted-like homeodomain protein. LeT6.
BAA25546.1 AB004785 Nicotiana tabacum
NTH15. homeobox gene.

AAD00252.1 U76408 Lycopersicon esculentum
knotted 3 protein. TKn3. homeodomain protein.
BAB18584.1 AB043956 Ceratopteris richardii
CRKNOX2. crknox2. knotted1-like homeodomain protein.
CAA96511.1 Z71979 Malus x domestica
kn1-like protein.
AAA20882.1 L13663 Glycine max
SBH1. Sbh1. soybean homeobox-containing gene.
CAB88029.1 AJ276389 Dendrobium grex Madame Thong-In
transcription factor. knotted1-like homeobox protein.
SEQ ID NO: 762
AAB65776.1 U97521 Vitis vinifera
class IV endochitinase. VvChi4A.
AAB65777.1 U97522 Vitis vinifera
class IV endochitinase. VvChi4B.
CAA53626.1 X76041 Triticum aestivum
endochitinase. CHI.
AAG53609.1 AF280437 Secale cereale
31.7 kDa class I endochitinase-antifreeze protein precursor. cht9.
BAA03750.1 D16222 Oryza sativa
endochitinase. Cht-2.
AAA32986.1 M95835 Brassica napus
endochitinase. Ch25.
BAA03749.1 D16221 Oryza sativa
endochitinase. Cht-1.
AAB01895.1 U48687 Castanea sativa
endochitinase.
SEQ ID NO: 763
AAA34065.1 M94135 Nicotiana tabacum
chloroplast carbonic anhydrase.
AAA34057.1 L19255 Nicotiana tabacum
carbonic anhydrase.
AAB65822.1 U55838 Populus tremula x Populus tremuloides
carbonic anhydrase. CA1b. EC 4.2.1.1.
AAC49785.1 U55837 Populus tremula x Populus tremuloides
carbonic anhydrase. CA1a. EC 4.2.1.1.
AAA34026.1 M27295 Spinacia oleracea
carbonic anhydrase precursor.
AAA34027.1 J05403 Spinacia oleracea
carbonic anhydrase (EC 4.2.1.1).
AAA86993.1 U19738 Flaveria linearis
reversible hydration of carbon dioxide. carbonic anhydrase 1.

AAA86942.1 U08402 Flaveria brownii
carbonic anhydrase.
AAA86992.1 U19737 Flaveria pringlei
reversible hydration of carbon dioxide. carbonic anhydrase.
AAA86939.1 U08398 Flaveria bidentis
carbonic anhydrase.
AAD27876.2 AF139464 Vigna radiata
carbonic anhydrase. CipCa1.
AAA33652.1 M63627 Pisum sativum
carbonic anhydrase.
AAD29050.1 AF132855 Gossypium hirsutum
interconversion of CO2 and HCO3 carbonic anhydrase isoform 2. CA2. zinc metalloenzyme;
carbonate dehydratase.
AAD29049.1 AF132854 Gossypium hirsutum
interconversion of CO2 and HCO3 carbonic anhydrase isoform 1. CA1. zinc metalloenzyme;
carbonate dehydratase.
AAA86994.1 U19740 Flaveria linearis
reversible hydration of carbon dioxide. carbonic anhydrase 2.
CAB43571.1 AJ239132 Glycine max
hydration of carbon dioxide. carbonic anhydrase. ca1.
CAA63712.1 X93312 Medicago sativa
Carbonic anhydrase. ca1.
AAA86945.1 U08403 Zea mays
carbonic anhydrase.
AAA86944.1 U08401 Zea mays
carbonic anhydrase.
AAC41656.1 L36959 Hordeum vulgare
carbonic anhydrase. putative.
AAA86943.1 U08404 Oryza sativa
carbonic anhydrase. nuclear encoded, localized to chloroplast.
AAD56038.1 AF182806 Oryza sativa
carbonic anhydrase 3. ca3.
BAA31953.1 AB016283 Oryza sativa
carbonic anhydrase.
AAA69027.1 U19739 Urochloa panicoides
reversible hydration of carbon dioxide. carbonic anhydrase 2.
AAA69028.1 U19741 Urochloa panicoides
reversible hydration of carbon dioxide. carbonic anhydrase 1.
BAA95793.1 AB009887 Nicotiana tabacum
carbonic anhydrase. carbonic anhydrase.
AAF78507.1 AF195204 Pyrus pyrifolia
carbonic anhydrase isoform 1. CA1.

AAC33484.1 U49976 Coccomyxa sp. PA
beta-type carbonic anhydrase beta-CA1.
AAA18560.1 M95073 Zea mays
putative. silimar to carbonic anhydrases.
AAB19184.1 U41190 Chlamydomonas reinhardtii
carbonic anhydrase precursor. beta-CA2.
AAB19183.1 U41189 Chlamydomonas reinhardtii
carbonic anhydrase precursor. beta-CA1.
AAC49887.1 U80804 Chlamydomonas reinhardtii
beta-carbonic anhydrase. ca1. beta-CA1.
AAC49888.1 U80805 Chlamydomonas reinhardtii
beta-carbonic anhydrase. ca2. beta-CA2.
SEQ ID NO: 764
AAC06027.1 AF052058 Vigna unguiculata
iron storage and mobilization in plants. ferritin subunit cowpea2 precursor.
AAD50644.1 AF133814 Solanum tuberosum
ferritin 1. F1.
AAB53099.1 U68217 Brassica napus
iron binding protein. ferritin. LSC30.
AAA33959.1 M64337 Glycine max
ferritin light chain, ferritin.
AAA34016.1 M72894 Glycine max
ferritin light chain. SOF-H2.
CAA58146.1 X83076 Zea mays
ferritin. Fer1.
AAB18928.1 U31648 Glycine max
iron storage protein. ferritin.
CAA65771.1 X97059 Medicago sativa
iron storage. ferritin. FER. abcissic acid regulated.
CAA43663.1 X61391 Zea mays
ferritin.
CAA58147.1 X83077 Zea mays
ferritin. Fer2.
AAC06026.1 AF052057 Vigna unguiculata
iron storage and mobilization in plants. ferritin subunit cowpea3 precursor.
CAA43664.1 X61392 Zea mays
ferritin.
CAA51786.1 X73369 Pisum sativum
ferritin.
CAA45763.1 X64417 Pisum sativum
ferritin-precursor.

CAA41213.1 X58274 Phaseolus vulgaris
ferritin. pfe.
AAA33958.1 M58336 Glycine max
ferritin light chain. SOF-5L.
CAB42587.1 AJ238628 Chlorella protothecoides
putative ferritin. dee188.
BAB17852.1 AB042612 Nicotiana tabacum
ferritin 1. tob-fer-1. putative.
AAC15241.1 AF028072 Pinus taeda
ferritin.
CAA47983.1 X67755 Vigna unguiculata
ferritin 2. pfe2.
CAA47982.1 X67754 Vigna unguiculata
ferritin 1. pfe1.
CAA47984.1 X67756 Vigna unguiculata
ferritin 5. pfe5.
AAC12282.1 AF052511 Glycine max
iron storage and mobilization. ferritin 2. soybean 2; cowpea 2 homolog.
AAC12281.1 AF052513 Glycine max
iron storage and mobilization. ferritin 1. soybean 1; cowpea 1 homolog.
SEQ ID NO: 765
AAC36697.1 AF075579 Mesembryanthemum crystallinum
protein phosphatase-2C. PP2C.
CAC10358.1 AJ277086 Nicotiana tabacum
protein phosphatase 2C. PP2C1.
CAB90633.1 AJ277743 Fagus sylvatica
protein phpsphatase 2C (PP2C), pp2C1. ABA-induced protein.
AAD17804.1 AF092431 Lotus japonicus
nodule-enhanced protein phosphatase type 2C. NPP2C1.
CAC10359.1 AJ277087 Nicotiana tabacum
protein phosphatase 2C. PP2C2.
CAC09575.1 AJ298987 Fagus sylvatica
protein phosphatase 2C (PP2C). pp2Cf1.
CAA72341.1 Y11607 Medicago sativa
protein phosphatase 2C. MP2C.
CAB61839.1 AJ242803 Sporobolus stapfianus
putative serine/threonine phosphatase type 2c.
AAD17805.1 AF092432 Lotus japonicus
protein phosphatase type 2C. PP2C2.
AAG43835.1 AF213455 Zea mays
protein phosphatase type-2C. pp2c-1. PP2C-1.

AAG46118.1 AC073166 Oryza sativa putative protein phosphatase-2C. OSJNBb0064P21.12. tRNA-Lys. AAG13599.1 AC051633 Oryza sativa putative protein phosphatase-2C. OSJNBb0015I11.26. AAC36698.1 AF075580 Mesembryanthemum crystallinum protein phosphatase-2C. PP2C. BAB12036.1 AP002820 Oryza sativa putative protein phosphatase. P0702D12.18. Mesembryanthemum crystallinum AAC36700.1 AF075582 protein phosphatase-2C. PP2C. AAC36699.1 AF075581 Mesembryanthemum crystallinum protein phosphatase-2C. PP2C. AAK20060.1 AC025783 Oryza sativa putative protein phosphatase 2C. OSJNBa0001O14.1. AAD11430.1 AF097667 Mesembryanthemum crystallinum protein phosphatase 2C homolog. PP2C. CAB90634.1 AJ277744 Fagus sylvatica protein phosphatase 2C (PP2C), pp2C2, ABA and calcium induced protein. AAC35951.1 AF079355 Mesembryanthemum crystallinum protein phosphatase-2c. PP2C. AAF19804.1 AF180355 Brassica oleracea ABI1 protein, ABI1. similar to Arabidopsis thaliana ABI1. AAB93832.1 U81960 Zea mays kinase interaction domain mediates phosphorylation-dependent binding to a subset of active receptor-like protein kinases; type 2C protein phosphatase. kinase associated protein phosphatase. KAPP. AAC26828.1 AF075603 Oryza sativa kinase interaction domain mediates phosphorylation-dependent binding to a subset of active receptor-like protein kinases. kinase associated protein phosphatase. kapp. type 2C protein phosphatase. CAC09576.1 AJ298988 Fagus sylvatica protein phosphatase 2C (PP2C). pp2Cf2. **SEO ID NO: 766** AAG08959.1 AF122051 Solanum tuberosum tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class transcription factor. AAG08960.1 AF122052 Solanum tuberosum tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class transcription factor. AAG08961.1 AF122053 Solanum tuberosum tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class transcription factor.

BAA88169.1 AP000836 Oryza sativa
Similar to putative transcription factor (AF062890).
BAA88205.1 AP000837 Oryza sativa
Similar to putative transcription factor (AF062890).
AAF34434.1 AF172282 Oryza sativa
myb-like protein. DUPR11.29.
AAF78890.1 AF189788 Hordeum vulgare
putative c-myb-like transcription factor. MYB3R-1. HvMYB3R-1.
AAF78889.1 AF189787 Hordeum vulgare
putative c-myb-like transcription factor. MYB3R-1. HvMYB3R-1.
AAF67053.1 AF190304 Adiantum raddianum
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAF67052.1 AF190303 Adiantum raddianum
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAF78888.1 AF189786 Physcomitrella patens
putative c-myb-like transcription factor. MYB3R-1. PpMYB3R-1.
AAF78887.1 AF189785 Physcomitrella patens
putative c-myb-like transcription factor. MYB3R-1. PpMYB3R-1.
AAF43043.1 AF236059 Papaver rhoeas
putative Myb-related domain. pmr.
BAA94769.1 AP001859 Oryza sativa
Similar to Arabidopsis thaliana chromosome 4, BAC clone F4D11; putative myb-protein.
(AL022537).
AAF67050.1 AF190301 Secale cereale
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAF67051.1 AF190302 Secale cereale
c-myb-like transcription factor, MYB3R-1, contains three MYB repeats.
CAA78388.1 Z13998 Petunia x hybrida
DNA-binding protein; transcriptional activator. protein 3. myb.Ph3. related to animal myb
proto-oncoproteins.
BAB39987.1 AP003020 Oryza sativa
putative transcription factor (myb). P0498A12.16. contains ESTs
AU097474(S5087),D40175(S1959).
BAB39972.1 AP003018 Oryza sativa
putative transcription factor (myb). OSJNBa0004B13.27. contains ESTs
AU097474(S5087),D40175(S1959).
CAA72218.1 Y11415 Oryza sativa
myb.
BAA81731.1 AB029160 Glycine max
GmMYB29A1.
BAA81730.1 AB029159 Glycine max
GmMYB29A1.

CAA72217.1 Y11414 Oryza sativa
myb.
BAA81736.1 AB029165 Glycine max
GmMYB29B2.
BAB12688.1 AP002746 Oryza sativa
putative MYB family transcription factor. P0671B11.3. contains ESTs AU082307(E0784),C72014(E0784).
BAA99440.1 AP002743 Oryza sativa
putative MYB family transcription factor. P0710E05.27. contains ESTs AU082307(E0784),C72014(E0784).
AAB41101.1 U72762 Nicotiana tabacum
transcription factor Myb1. myb1. TMV-inducible Myb homolog; contains helix-turn-helix
motif; contains redox-sensitive cysteine.
BAA88223.1 AB028651 Nicotiana tabacum
myb-related transcription factor LBM3. lbm3.
BAA23340.1 D88620 Oryza sativa
transfactor. OSMYB4. Osmyb4.
BAA93038.1 AP001552 Oryza sativa
EST AU082058(C12976) corresponds to a region of the predicted gene. Similar to
Arabidopsis thaliana putative transcription factor (AF062916).
AAA33067.1 L04497 Gossypium hirsutum
MYB A; putative.
BAA81733.2 AB029162 Glycine max
GmMYB29A2.
BAA88222.1 AB028650 Nicotiana tabacum
myb-related transcription factor LBM2. lbm2.
CAB43399.1 AJ006292 Antirrhinum majus
Myb-related transcription factor mixta-like 1. mybml1.
BAA81732.1 AB029161 Glycine max
GmMYB29A2.
AAG28525.1 AF198498 Nicotiana tabacum anther-specific myb-related protein 2. mybAS2, NtMYBAS2; contains tandem R2, R3 myb
domains similar to c-myb family.
CAA50226.1 X70881 Hordeum vulgare
MybHv33. myb3.
CAA50223.1 X70878 Hordeum vulgare
MybHv33. myb3.
CAA78387.1 Z13997 Petunia x hybrida
DNA-binding protein, transcriptional activator. protein 2. myb.Ph2. related to animal myb
proto-oncoproteins.
CAA67000.1 X98355 Oryza sativa
activator of alpha-amylase gene promoter. transcription factor GAMyb. Gam1. Myb-like;
expression is regulated by gibberellin.

AAK19616.1 AF336283 Gossypium hirsutum GHMYB25. ghmyb25. similar to myb; contains an unspliced intron. AAG28526.1 AF198499 Nicotiana tabacum anther-specific myb-related protein 1. mybAS1. NtMYBAS1; contains N-terminal R2, R3 myb domain repeats similar to c-myb. CAA78386.1 Z13996 Petunia x hybrida DNA binding protein; transcriptional activator, protein 1, myb.Ph3. Product related to animal myb proto-oncoproteins. Sequence from nucleotide 992 is not included in clone cPF1 and has been obtained by PCR amplification of cDNA. CAA66952.1 X98308 Lycopersicon esculentum THM18. myb-related transcription factor. BAA23341.1 D88621 Oryza sativa transfactor. OSMYB5. Osmyb5. CAA50221.1 X70876 Hordeum vulgare MybHv5. myb2. AAK19611.1 AF336278 Gossypium hirsutum BNLGHi233. bnlghi6233. similar to myb. AAC04716.1 AF034130 Gossypium hirsutum putative MYB-like transcription factor, MYB-like DNA-binding domain protein. Cmy-D. similar to MYB A encoded by GenBank Accession Number L04497. Hordeum vulgare CAA61021.1 X87690 transcriptional activator of alpha-amylase gene promoter. GAMyb protein. Gam1. Hordeum vulgare AAG22863.1 AY008692 transcription factor GAMyb. Gamyb. **SEO ID NO: 767** CAB08111.1 Z94180 Lycopersicon esculentum branched chain alpha-keto acid dehydrogenase E1-alpha subunit. CAA81558.1 Z26949 Solanum tuberosum subunit of the mitochondrial pyruvate dehydrogenase complex. E1 alpha subunit of pyruvate dehydrogenase precursor. AAC72195.1 AF069911 Zea mays pyruvate dehydrogenase E1 alpha subunit. AAG43499.1 AF209924 Lycopersicon esculentum pyruvate dehydrogenase. AAA97411.1 U51918 Pisum sativum pyruvate dehydrogenase E1 alpha subunit. CAA10992.1 AJ222787 Hordeum vulgare alpha-keto acid dehydrogenase-like protein, homology to branched chain alpha-keto acid dehydrogenase E1-alpha subunit. **SEQ ID NO: 768** AAF64450.1 AF239928 Euphorbia esula glutathione S-transferase. similar to auxin-inducible GST.

AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAG34803.1 AF243368 Glycine max
glutathione S-transferase GST 13.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAC18566.1 AF048978 Glycine max
2,4-D inducible glutathione S-transferase. GSTa.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34800.1 AF243365 Glycine max
glutathione S-transferase GST 10.
CAA71784.1 Y10820 Glycine max
glutathione transferase.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
AAG32472.1 AF309379 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU3.
AAA68430.1 J03679 Solanum tuberosum
glutathione S-transferase. gst1. previously called pathogenesis-related protein; prp1-1.
CAA04391.1 AJ000923 Carica papaya
glutathione transferase. PGST1.
9

AAG34831.1 AF244688 Zea mays
glutathione S-transferase GST 23.
CAA09187.1 AJ010448 Alopecurus myosuroides
glutathione transferase. GST1a.
CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.
AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
AAG34805.1 AF243370 Glycine max
glutathione S-transferase GST 15.
AAG34832.1 AF244689 Zea mays
glutathione S-transferase GST 24.
AAG34837.1 AF244694 Zea mays
glutathione S-transferase GST 29.
AAG34836.1 AF244693 Zea mays
glutathione S-transferase GST 28.
AAG32471.1 AF309378 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU4.
AAG34849.1 AF244706 Zea mays
glutathione S-transferase GST 41.
CAC24549.1 AJ296343 Cichorium intybus x Cichorium endivia
glutathione S-transferase. chi-GST1. auxin-induced GST.
AAC32118.1 AF051214 Picea mariana
probable glutathione S-transferase. Sb18. similar to Nicotiana tabacum probable glutathione
S-transferase encoded by GenBank Accession Number X56266.
AAG34795.1 AF243360 Glycine max
glutathione S-transferase GST 5.
AAG34841.1 AF244698 Zea mays
glutathione S-transferase GST 33.
AAF29773.1 AF159229 Gossypium hirsutum
glutathione S-transferase. GST.
SEQ ID NO: 769
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAG34803.1 AF243368 Glycine max
glutathione S-transferase GST 13.
AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAF64450.1 AF239928 Euphorbia esula
glutathione S-transferase. similar to auxin-inducible GST.

AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
AAG34831.1 AF244688 Zea mays
glutathione S-transferase GST 23.
AAC18566.1 AF048978 Glycine max
2,4-D inducible glutathione S-transferase. GSTa.
AAG34832.1 AF244689 Zea mays
glutathione S-transferase GST 24.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34837.1 AF244694 Zea mays
glutathione S-transferase GST 29.
AAG34800.1 AF243365 Glycine max
glutathione S-transferase GST 10.
AAG34836.1 AF244693 Zea mays
glutathione S-transferase GST 28.
CAA04391.1 AJ000923 Carica papaya
glutathione transferase. PGST1.
CAA71784.1 Y10820 Glycine max
glutathione transferase.
AAG34849.1 AF244706 Zea mays
glutathione S-transferase GST 41.
AAA68430.1 J03679 Solanum tuberosum
glutathione S-transferase. gst1. previously called pathogenesis-related protein; prp1-1.

AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
CAC24549.1 AJ296343 Cichorium intybus x Cichorium endivia
glutathione S-transferase. chi-GST1. auxin-induced GST.
CAA09187.1 AJ010448 Alopecurus myosuroides
glutathione transferase. GST1a.
AAF22518.1 AF118925 Papaver somniferum
glutathione S-transferase 2. GST2.
AAG32471.1 AF309378 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU4.
CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.
AAF22517.1 AF118924 Papaver somniferum
glutathione S-transferase 1. GST1.
AAF22647.1 AF193439 Lycopersicon esculentum
glutathione S-transferase/peroxidase. BI-GST/GPX.
AAG32473.1 AF309380 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU2.
AAG32472.1 AF309379 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU3.
SEQ ID NO: 771
AAG46118.1 AC073166 Oryza sativa
putative protein phosphatase-2C. OSJNBb0064P21.12. tRNA-Lys.
AAG13599.1 AC051633 Oryza sativa
putative protein phosphatase-2C. OSJNBb0015I11.26.
BAB12036.1 AP002820 Oryza sativa
putative protein phosphatase. P0702D12.18.
AAC36698.1 AF075580 Mesembryanthemum crystallinum
protein phosphatase-2C. PP2C.
CAA72341.1 Y11607 Medicago sativa
protein phosphatase 2C. MP2C.
AAG43835.1 AF213455 Zea mays
protein phosphatase type-2C. pp2c-1. PP2C-1.
CAB61839.1 AJ242803 Sporobolus stapfianus
putative serine/threonine phosphatase type 2c.
AAD17804.1 AF092431 Lotus japonicus
nodule-enhanced protein phosphatase type 2C. NPP2C1.
AAD17805.1 AF092432 Lotus japonicus
protein phosphatase type 2C. PP2C2.
AAC36697.1 AF075579 Mesembryanthemum crystallinum
protein phosphatase-2C. PP2C.

CAB90633.1 AJ277743 Fagus sylvatica protein phpsphatase 2C (PP2C). pp2C1. ABA-induced protein. CAC10358.1 AJ277086 Nicotiana tabacum protein phosphatase 2C. PP2C1. Nicotiana tabacum CAC10359.1 AJ277087 protein phosphatase 2C. PP2C2. AAC36700.1 AF075582 Mesembryanthemum crystallinum protein phosphatase-2C. PP2C. CAC09575.1 AJ298987 Fagus sylvatica protein phosphatase 2C (PP2C), pp2Cf1. AAK20060.1 AC025783 Orvza sativa putative protein phosphatase 2C. OSJNBa0001014.1. CAB90634.1 AJ277744 Fagus sylvatica protein phosphatase 2C (PP2C), pp2C2. ABA and calcium induced protein. Mesembryanthemum crystallinum AAC35951.1 AF079355 protein phosphatase-2c. PP2C. AAD11430.1 AF097667 Mesembryanthemum crystallinum protein phosphatase 2C homolog. PP2C. AAB93832.1 U81960 Zea mays kinase interaction domain mediates phosphorylation-dependent binding to a subset of active receptor-like protein kinases; type 2C protein phosphatase, kinase associated protein phosphatase. KAPP. AAC26828.1 AF075603 Orvza sativa kinase interaction domain mediates phosphorylation-dependent binding to a subset of active receptor-like protein kinases. kinase associated protein phosphatase. kapp. type 2C protein phosphatase. AAC36699.1 AF075581 Mesembryanthemum crystallinum protein phosphatase-2C. PP2C. CAC09576.1 AJ298988 Fagus sylvatica protein phosphatase 2C (PP2C). pp2Cf2. **SEQ ID NO: 777** AAD21872.1 AF078082 Phaseolus vulgaris receptor-like protein kinase homolog RK20-1. AAB93834.1 U82481 Zea mays KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase. CAA74661.1 Y14285 Brassica oleracea SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular kinase domain: 1412-2554. AAD52097.1 AF088885 Nicotiana tabacum receptor-like kinase CHRK1. Chrk1. CAA73134.1 Y12531 Brassica oleracea serine/threonine kinase. BRLK.

CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.

BAA92954.1 AP001551 Oryza sativa
Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821).
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs
AU056701(S20808),AU056702(S20808).
AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.
BAB39435.1 AP003338 Oryza sativa
putative receptor kinase. OJ1212_B09.2.
BAB07904.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.12.
BAA94518.1 AP001800 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like
protein kinase (AC002392).
AAG16628.1 AY007545 Brassica napus
protein serine/threonine kinase BNK1.
BAB39409.1 AP002901 Oryza sativa
putative protein kinase. P0456F08.9. contains EST C23560(R0290).
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1 AArabidopsis thaliana. P0001B06.24. contains ESTs
C22608(R3192),D25110(R3192).
AAF91324.1 AF244890 Glycine max
receptor-like protein kinase 3. RLK3. GmRLK3.
BAA82556.1 AB030083 Populus nigra
lectin-like protein kinase. PnLPK.
AAF91323.1 AF244889 Glycine max
receptor-like protein kinase 2. RLK2. GmRLK2.
AAF91322.1 AF244888 Glycine max
receptor-like protein kinase 1. RLK1. GmRLK1.
SEQ ID NO: 779
AAK31284.1 AC079890 Oryza sativa
putative quinone oxidoreductase. OSJNBb0089A17.10.
BAA78050.1 AB027757 Cicer arietinum
NADPH oxidoreductase homolog.
BAA83082.1 AB030704 Lithospermum erythrorhizon
LEDI-4 protein. LEDI-4. preferentially expressed in darkness; putative NADPH quinone
oxidoreductase; similar to zeta-crystallin.
AAG53944.1 AF304461 Triphysaria versicolor
quinone-oxidoreductase QR1. TvQR1.
SEQ ID NO: 780
AAK17067.1 AF254558 Oryza sativa
NAC6. NAC6.

BAA89800.1 AB028185 Oryza sativa
OsNAC6 protein, OsNAC6.
BAA89799.1 AB028184 Oryza sativa
OsNAC5 protein, OsNAC5.
BAA89798.1 AB028183 Oryza sativa
OsNAC4 protein. OsNAC4.
BAA89797.1 AB028182 Oryza sativa
OsNAC3 protein. OsNAC3.
BAA89801.1 AB028186 Oryza sativa
OsNAC7 protein. OsNAC7.
AAF68626.1 AF254124 Medicago truncatula
NAC1. NAC1. NAC domain containing protein.
BAA89802.1 AB028187 Oryza sativa
OsNAC8 protein. OsNAC8.
BAA78417.1 AB021178 Nicotiana tabacum
NAC-domain protein. TERN. elicitor-responsive gene.
SEQ ID NO: 783
CAA54390.1 X77134 Brassica napus
acyl-CoA binding protein.
CAA70200.1 Y08996 Ricinus communis
acyl-CoA-binding protein.
CAB56693.1 AJ249833 Digitalis lanata
binds medium- and long-chain acyl-coa esters. Acyl-CoA binding protein (ACBP). acbp3.
CAB56694.1 AJ249834 Digitalis lanata
binds medium- and long-chain acyl-coa esters. Acyl-CoA binding protein (ACBP). acbp4.
AAB67736.1 U35015 Gossypium hirsutum
acyl-CoA-binding protein.
AAB86851.1 AF031541 Fritillaria agrestis
acyl-CoA-binding protein. acabp.
SEQ ID NO: 784
CAA58994.1 X84208 Sinapis alba
trypsin inhibitor 2. mti-2.
CAA76116.1 Y16190 Sinapis alba
trypsin inhibitor 2. mti-2.
SEQ ID NO: 785
AAF66242.1 AF243180 Lycopersicon esculentum
dicyanin. binuclear blue copper protein; contains two stellacyanins linked together.
A

AAC32421.1 U65511 Cucumis sativus

putative oxygen activation and/or lignin formation. stellacyanin. member of a strictly plant-specific family of mononuclear blue copper proteins known as phytocyanins, which are further classified into three distinct subfamilies: Uclacyanins, Stellacyanins, and Plantacyanins; member of the subfamily of Stellacyanins; similar to Rhus vernicifera stellacyanin: SwissProt Accession Number P00302; similar to umecyanin: SwissProt Accession Number P42849; similar to mavicyanin; SwissProt Accession Number P80728; similar to BCB encoded by GenBank Accession Number Z15058; similar to F18A8.9, encoded by GenBank Accession Number AC003105; similar to F7F1.27 encoded by GenBank Accession Number AC004669; similar to F9D12.16 encoded by GenBank Accession Number AF077407; glycoprotein.

CAA80963.1 Z25471 Pisum sativum

blue copper protein.

AAD10251.1 AF031195 Triticum aestivum

blue copper-binding protein homolog. S85.

AAC64163.1 AF093537 Zea mays

blue copper protein. similar to pea blue copper protein in GenBank Accession Number Z25471.

CAA10134.1 AJ012693 Cicer arietinum

basic blue copper protein.

AAF66243.1 AF243181 Lycopersicon esculentum

plantacyanin. naturally occurring cupredoxin with a Val residue in the position of the axial ligand Met; member of the plantacyanin subfamily of a strictly plant-specific family of mononuclear blue copper proteins known as phytocyanins.

CAB65280.1 AJ248323 Medicago sativa subsp. x varia

basic blue protein. babl.

AAC32448.1 U76296 Spinacia oleracea

plantacyanin. member of a strictly plant-specific family of mononuclear blue copper proteins known as phytocyanins, which are further classified into three distinct subfamilies: Uclacyanins, Stellacyanins, and Plantacyanins; member of the subfamily of Plantacyanins; non-glycosylated.

SEQ ID NO: 793

BAA81862.1 AB026295 Oryza sativa

Similar to leucoanthocyanidin dioxygenase.(AI440611).

AAB39995.1 U82432 Dianthus caryophyllus

anthocyanidin synthase. allele: S; 2-oxoglutarat-dependent dioxygenase.

BAA36554.1 AB011796 Citrus unshiu

flavonol synthase. CitFLS.

AAD56580.1 AF184273 Daucus carota

leucoanthocyanidin dioxygenase 1. LDOX1. 2-oxoglutarate dependent dioxygenase.

AAD56581.1 AF184274 Daucus carota

leucoanthocyanidin dioxygenase 2. LDOX. 2-oxoglutarate dependent dioxygenase.

CAA50498.1 X71360 Malus sp.

anthocyanidin hydroxylase. apple equivalent to 'Candi' from Antirrhinum majus.

AAD26205.1 AF117269 Malus x domestica
anthocyanidin synthase. ANS.
AAB82287.1 AF026058 Matthiola incana
anthocyanidin synthase.
CAA80264.1 Z22543 Petunia x hybrida
flavonol synthase.
AAF64168.1 AF240764 Eustoma grandiflorum
flavonol synthase. fls.
BAA20143.1 AB003779 Perilla frutescens
leucoanthocyanidin dioxygenase.
AAB66560.1 AF015885 Callistephus chinensis
anthocyanidin synthase.
BAB21477.1 AB044091 Torenia fournieri
anthocyanidin synthase. 2-oxoglutarate dependent oxygenase.
CAA63092.1 X92178 Solanum tuberosum
flavonol synthase.
AAD26261.1 AF119095 Malus x domestica
flavonol synthase. FLS.
CAA53580.1 X75966 Vitis vinifera
leucoanthocyanidin dioxygenase. LDOX.
BAA75305.1 AB023786 Ipomoea batatas
anthocyanidin synthase. ans I.
AAB84049.1 AF028602 Ipomoea purpurea
anthocyanidin synthase. ANS-FL1.
BAA75306.1 AB023787 Ipomoea batatas
anthocyanidin synthase. ans II.
CAA73094.1 Y12489 Forsythia x intermedia
anthocyanidin synthase.
CAA69252.1 Y07955 Oryza sativa
anthocyanidin synthase. ANS.
SEQ ID NO: 794
AAD10204.1 AF030260 Vicia sativa
CYP94A1. vagh111. cytochrome P450 fatty acid hydroxylase; Method: conceptual translation
with partial peptide sequencing.
AAG33645.1 AF092917 Vicia sativa
cytochrome P450-dependent fatty acid hydroxylase. CYP94A2.
AAG17470.1 AF123609 Triticum aestivum
cytochrome P450.
BAA99523.1 AP002484 Oryza sativa
putative cytochrome P450. P0489A01.14.
AAK31592.1 AY029178 Brassica rapa subsp. pekinensis
cytochrome P450. mf-CYP450. possible relevance to male-sterility.

BAA99522.1 AP002484 Oryza sativa
putative cytochrome P450. P0489A01.13.
BAA83370.1 AP000391 Oryza sativa
ESTs AU056036(S20239),C72753(E2173), AU056035(S20239) correspond to a region of the
predicted gene.; Similar to putative cytochrome P-450 (AC003680).
CAB41474.1 AJ238402 Catharanthus roseus
cytochrome P450. CYP96C1.
AAB94586.1 AF022457 Glycine max
CYP97B2p. CYP97B2. cytochrome P450 monooxygenase.
AAK20054.1 AC025783 Oryza sativa
putative cytochrome P450 monooxygenase. OSJNBa0001O14.16.
AAK38086.1 AF321862 Lolium rigidum
putative cytochrome P450.
AAK38085.1 AF321861 Lolium rigidum
putative cytochrome P450.
AAB94588.1 AF022459 Glycine max
CYP71D10p. CYP71D10. cytochrome P450 monooxygenase.
CAA89260.1 Z49263 Pisum sativum
cytochrome P450.
AAG09208.1 AF175278 Pisum sativum
wound-inducible P450 hydroxylase. CYP82A1.
AAC49188.2 U29333 Pisum sativum
cytochrome P450 monooxygenase. CYP82. new cytochrome P450 family.
BAB19083.1 AP002744 Oryza sativa
putative cytochrome P450. P0006C01.25. contains ESTs
AU081507(C12518),C26520(C12518).
BAB19104.1 AP002839 Oryza sativa
putative cytochrome P450. P0688A04.10. contains ESTs
AU081507(C12518),C26520(C12518).
AAK38092.1 AF321868 Lolium rigidum
putative cytochrome P450.
CAA04117.1 AJ000478 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B11. chimeric sequence (from 5'-
race).
AAK38091.1 AF321867 Lolium rigidum
putative cytochrome P450.
CAA04116.1 AJ000477 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B1c.
BAA22423.1 AB001380 Glycyrrhiza echinata
cytochrome P450. CYP93B1.
CAA71876.1 Y10982 Glycine max
putative cytochrome P450.

BAB39252.1 AP002968 Oryza sativa
putative cytochrome P450. P0416G11.1.
AAA33106.1 L10081 Catharanthus roseus
cytochrome P-450 protein. CYP72. putative; CYP72 protein.
AAA17746.1 L19075 Catharanthus roseus
cytochrome P450. CYP72C. putative.
BAA74466.1 AB022733 Glycyrrhiza echinata
cytochrome P450. CYP Ge-51.
BAB19121.1 AP002839 Oryza sativa
putative cytochrome P450. P0688A04.28.
AAA17732.1 L19074 Catharanthus roseus
cytochrome P450. CYP72B.
BAA93634.1 AB025016 Lotus japonicus
cytochrome P450.
AAB05376.3 U35226 Nicotiana plumbaginifolia
putative cytochrome P-450.
AAB61965.1 U48435 Solanum chacoense
putative cytochrome P450.
AAF27282.1 AF122821 Capsicum annuum
cytochrome P450. PepCYP.
CAB50768.1 AJ243804 Cicer arietinum
putative isoflavone synthase. cytochrome P450. cyp93C3.
AAC34853.1 AF082028 Hemerocallis hybrid cultivar
putative cyt P450-containing fatty acid hydroxylase. senescence-associated protein 3. SA3.
mRNA accumulates in senescing petals.
CAB43505.1 AJ239051 Cicer arietinum
cytochrome P450. cyp81E2.
BAB21156.1 AP002899 Oryza sativa
putative cytochrome P450. P0456A01.12.
CAA50648.1 X71657 Solanum melongena
P450 hydroxylase.
BAB19112.1 AP002839 Oryza sativa
putative cytochrome P450. P0688A04.18. contains ESTs
AU067870(C10320),AU067869(C10320).
BAB19091.1 AP002744 Oryza sativa
putative cytochrome P450. P0006C01.33. contains ESTs AU067870(C10320), AU067869(C10320).
BAA84072.1 AB028152 Torenia hybrida
flavone synthase II. cytochrome P450. TFNS5.
BAA76380.1 AB023636 Glycyrrhiza echinata
cytochrome P450. CYP Ge-8.
CAA72208.1 Y11404 Zea mays
cytochrome p450. cyp71c2.
ojioomome p 100. ojp/ xoo.

CAA57423.1 X81829 Zea mays
cytochrome P450. CYP71C2. family CYP71, subfamily CYP71C.
BAB12433.1 AB025030 Coptis japonica
p450.
SEQ ID NO: 798
BAB21205.1 AP002913 Oryza sativa
nucleoid DNA-binding protein cnd41-like protein. P0480E02.11. contains ESTs
AU166073(E31027),AU029516(E31027).
BAA22813.1 D26015 Nicotiana tabacum
aspartic protease activity. CND41, chloroplast nucleoid DNA binding protein. cnd41.
SEQ ID NO: 804
AAD46491.1 AF135014 Zea mays
dihydrolipoamide S-acetyltransferase. pyruvate dehydrogenase complex E2 subunit.
SEQ ID NO: 805
BAA85412.1 AP000615 Oryza sativa
ESTs AU065232(E60855),C23624(S1554), AU078241(E60855) correspond to a region of the
predicted gene.; similar to putative adenylate kinase. (AC005896).
BAA01181.1 D10335 Oryza sativa
adenylate kinase-b. Adk-b.
BAA01180.1 D10334 Oryza sativa
adenylate kinase-a. Adk-a.
BAA94761.1 AB041773 Oryza sativa
adenylate kinase. Adk-a.
AAB68604.1 U82330 Prunus armeniaca
adenylate kinase homolog.
AAF23372.1 AF187063 Oryza sativa
catalyzes the transfer of phosphate from ATP to UMP or CMP to form ADP and UDP or
CDP. UMP/CMP kinase b. ura6.
AAF23371.1 AF187062 Oryza sativa
catalyzes the transfer of phosphate from ATP to UMP or CMP to form ADP and UDP or
CDP. UMP/CMP kinase a. ura6.
AAD41679.1 AF086603 Ceratopteris richardii
adenylate kinase. ADK1.
BAA85443.1 AP000616 Oryza sativa
similar to UMP/CMP kinase (AF000147).
SEQ ID NO: 808
CAA41774.1 X59046 Oryza sativa
sucrose-UDP glucosyltransferase (isoenzyme 2). RSs2.
BAA89049.1 AB029401 Citrus unshiu
sucrose synthase. CitSUS1-2.
AAA34196.1 L19762 Lycopersicon esculentum
sucrose synthase.

DA 4 00005 1 4 D000000 Civ. 11
BAA88905.1 AB022092 Citrus unshiu
sucrose synthase. CitSUS1.
AAD28641.1 U73588 Gossypium hirsutum
sucrose synthase.
CAA49428.1 X69773 Vicia faba
sucrose synthase. VfSucs.
AAC37346.1 M97551 Vicia faba
cleavage of sucrose. UDP-glucose:D-fructose-2-glucosyltransferase. putative.
CAA09681.1 AJ011535 Lycopersicon esculentum
sucrose synthase, sus2.
AAA97572.1 U24088 Solanum tuberosum
sucrose synthase.
CAA09593.1 AJ011319 Lycopersicon esculentum
sucrose synthase. sus3.
CAB40794.1 AJ131943 Medicago truncatula
sucrose synthase. sucS1.
AAC17867.1 AF049487 Medicago sativa
sucrose hydrolysis. sucrose synthase.
CAB40795.1 AJ131964 Medicago truncatula
sucrose synthase. sucS1.
CAA65640.1 X96939 Tulipa gesneriana
sucrose-synthase 21.
AAA97571.1 U24087 Solanum tuberosum
sucrose synthase.
CAA63122.1 X92378 Alnus glutinosa
sucrose synthase. sus1.
AAA33514.1 L22296 Zea mays
UDP-glucose:D-fructose 2-glucosyl-transferase. Sus1.
CAA65639.1 X96938 Tulipa gesneriana
sucrose-synthase 1.
AAC41682.1 L03366 Oryza sativa
sucrose synthase 3. RSs3.
CAA75793.1 Y15802 Hordeum vulgare
sucrose synthase 2. Ss2.
CAA49551.1 X69931 Hordeum vulgare
sucrose synthase. Ss2.
CAA76056.1 Y16090 Daucus carota
sucrose synthase isoform I. Susy*Dc1.
CAA53081.1 X75332 Daucus carota
sucrose synthase.
AAA33515.1 L33244 Zea mays
sucrose synthase 2. Sus1.

BAB20799.1 AB045710 Pyrus pyrifolia
sucrose synthase 1. PypSUS1.
CAA03935.1 AJ000153 Triticum aestivum
sucrose synthase type 2.
AAC39323.1 AF030231 Glycine max
sucrose synthase. SS. nodulin-100.
BAA01108.1 D10266 Vigna radiata
sucrose synthase. vssl.
CAA09910.1 AJ012080 Pisum sativum
sucrose synthase.
AAC28107.1 AF079851 Pisum sativum
nodule-enhanced sucrose synthase. ness.
CAC32462.1 AJ311496 Pisum sativum
sucrose metabolism. sucrose synthase isoform 3. sus3.
CAA57881.1 X82504 Chenopodium rubrum
sucrose synthase. CSS1.
CAA26229.1 X02382 Zea mays
sucrose synthase.
CAA26247.1 X02400 Zea mays
sucrose synthase.
CAA46017.1 X64770 Oryza sativa
sucrose synthase. RSs1.
CAB38022.1 AJ132000 Craterostigma plantagineum
sucrose metabolism. sucrose synthase. Ss2.
CAA78747.1 Z15028 Oryza sativa
sucrose synthase.
AAF85966.1 AF263384 Saccharum officinarum
sucrose synthase-1.
CAA46701.1 X65871 Hordeum vulgare
sucrose synthase.
CAA04543.1 AJ001117 Triticum aestivum
sucrose synthase type I. Ss1.
BAA88904.1 AB022091 Citrus unshiu
sucrose synthase. CitSUSA.
BAA88981.1 AB025778 Citrus unshiu
sucrose synthase. CitSUSA-2.
CAA04512.1 AJ001071 Pisum sativum
second sucrose synthase.
CAA76057.1 Y16091 Daucus carota
sucrose synthase isoform II. Susy*Dc2.
CAB38021.1 AJ131999 Craterostigma plantagineum
sucrose metabolism. sucrose synthase. Ss1.

CAA57499.1 X81974 Beta vulgaris
sucrose synthase. SBSS1.
CAA47264.1 X66728 Hordeum vulgare
sucrose synthase.
SEQ ID NO: 809
AAB69317.1 AF012861 Petroselinum crispum
plastidic glucose-6-phosphate dehydrogenase. pG6PDH.
AAF87216.1 AF231351 Nicotiana tabacum
plastidic glucose 6-phosphate dehydrogenase. G6PDHP2.
CAA67782.1 X99405 Nicotiana tabacum
glucose-6-phosphate dehydrogenase. G6PD. CAB52708.1 AJ010712 Solanum tuberosum
glucose-6-phosphate 1-dehydrogenase. g6pd.
CAB52685.1 AJ132346 Dunaliella bioculata
plastidic glucose-6-phosphate dehydrogenase. g6PD.
CAA58775.1 X83923 Solanum tuberosum
glucose-6-phosphate dehydrogenase.
CAA03941.1 AJ000184 Spinacia oleracea
Glucose-6-phosphate dehydrogenase. G6PD.
CAA03939.1 AJ000182 Spinacia oleracea
Glucose-6-phosphate dehydrogenase. G6PD.
CAA04994.1 AJ001772 Nicotiana tabacum
glucose-6-phosphate dehydrogenase. TCG18.
CAA03940.1 AJ000183 Spinacia oleracea
Glucose-6-phosphate dehydrogenase. G6PD.
AAD11426.1 AF097663 Mesembryanthemum crystallinum
cytoplasmic glucose-6-phosphate 1-dehydrogenase. G6PD.
AAB41552.1 U18238 Medicago sativa subsp. sativa
glucose-6-phosphate dehydrogenase.
CAA52442.1 X74421 Solanum tuberosum
glucose-6-phosphate 1-dehydrogenase. g6pdh. homotetramer.
AAB69318.1 AF012862 Petroselinum crispum
cytosolic glucose-6-phosphate dehydrogenase 1. cG6PDH1.
AAB69319.1 AF012863 Petroselinum crispum
cytosolic glucose-6-phosphate dehydrogenase 2. cG6PDH2.
CAA04992.1 AJ001769 Nicotiana tabacum
glucose-6-phosphate dehydrogenase. TCG6.
CAA04993.1 AJ001770 Nicotiana tabacum
glucose-6-phosphate dehydrogenase. TCG9.
BAA97662.1 AB029454 Triticum aestivum
glucose-6-phosphate dehydrogenase. g6pdh.

BAA97663.1 AB029455 Triticum aestivum
glucose-6-phosphate dehydrogenase. g6pdh.
BAA97664.1 AB029456 Triticum aestivum
glucose-6-phosphate dehydrogenase. g6pdh.
AAG23802.1 AF260736 Cucurbita pepo
plastidic glucose-6-phosphate dehydrogenase.
CAB66330.1 AJ279688 Betula pendula
glucose-6-phosphate dehydrogenase. g6pd.
BAA82155.1 AB011441 Triticum aestivum
glucose-6-phosphate dehydrogenase. WESR5. salt-stress responding gene.
CAA06200.1 AJ004900 Glycine max
pentose phosphate pathway oxidoreductase generating NADPH. glucose-6-phosphate-dehydrogenase.
SEQ ID NO: 812
BAA08910.1 D50407 Cucumis sativus
glutamyl-tRNA reductase. hemA.
AAD16897.1 AF105221 Glycine max
converts glutamyl-tRNA to glutamate 1-semialdehyde. glutamyl-tRNA reductase precursor.
gtr1.
BAA11091.1 D67088 Cucumis sativus
glutamyl-tRNA reductase, hemA2.
BAA25003.1 AB011416 Oryza sativa
glutamy1-tRNA reductase.
AAG13620.1 AC078840 Oryza sativa
putative glutamyl-tRNA reductase. OSJNBb0073N24.1.
CAA60054.1 X86101 Hordeum vulgare
aminolevulinate synthesis (chlorophyll synthesis). glutamyl tRNA reductase. hemA 1. 1st isoform.
CAA63140.1 X92403 Hordeum vulgare
glutamyl-tRNA reductase. hemA1. isoform I.
BAA25167.1 D88382 Hordeum vulgare
glutamyl-tRNA reductase. hemA1. isoform 1.
CAA60055.1 X86102 Hordeum vulgare
aminolevulinate synthesis (chlorophyll synthesis). glutamyl tRNA reductase. hemA 2. 2nd
isoform.
BAA25168.1 D88383 Hordeum vulgare
glutamyl-tRNA reductase. hemA3. isoform 3.
AAG41962.1 AF305613 Chlamydomonas reinhardtii
glutamyl-tRNA reductase precursor. HemA. pGtr.
AAG02480.1 AF294753 Hordeum vulgare
converts glutamyl-tRNA to glutamate 1-semialdehyde in the chlorophyll biosynthetic
pathway. glutamyl-tRNA reductase. hemA2.

AAG02479.1 AF294752 Hordeum vulgare converts glutamyl-tRNA to glutamate 1-semialdehyde in the chlorophyll biosynthetic pathway. glutamyl-tRNA reductase. hemA1. **SEQ ID NO: 813** BAA82556.1 AB030083 Populus nigra lectin-like protein kinase. PnLPK. AAD21872.1 AF078082 Phaseolus vulgaris receptor-like protein kinase homolog RK20-1. Oryza sativa subsp. japonica AAF43408.1 AF230515 serine/threonine protein kinase. YK35. CAB51480.1 Y14600 Sorghum bicolor putative protein serine /threonine kinase. RLK1. accumulates in mesophyll cells. CAA73134.1 Y12531 Brassica oleracea serine/threonine kinase. BRLK. AAB93834.1 U82481 Zea mays KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase. AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821). BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808), AU056702(S20808). BAB19337.1 AP003044 Oryza sativa putative protein kinase. P0038C05.10. contains ESTs AU056335(S20481),AU056336(S20481). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. BAA92953.1 AP001551 Oryza sativa Similar to Arabidopsis thaliana chromosome 4 BAC clone F10M6; S-receptor kinase -like protein. (AL021811). BAB07906.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.14. BAA94516.1 AP001800 Oryza sativa Similar to Zea mays S-domain receptor-like protein kinase (AJ010166). AAD52097.1 AF088885 Nicotiana tabacum receptor-like kinase CHRK1. Chrk1. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAC23542.1 U20948 Ipomoea trifida receptor protein kinase. IRK1.

BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAG16628.1 AY007545 Brassica napus
protein serine/threonine kinase BNK1.
AAA33915.1 L27821 Oryza sativa
receptor type serine/threonine kinase. protein kinase.
BAB03429.1 AP002817 Oryza sativa
EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis
thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587).
BAB07999.1 AP002525 Oryza sativa
putative protein kinase. P0462H08.22. contains EST C22619(S11214).
BAA94509.1 AB041503 Populus nigra
protein kinase 1. PnPK1.
AAD46420.1 AF100771 Hordeum vulgare
receptor-like kinase. Hv3ARK. similar to wheat ARK1AS.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
AAD38286.1 AC007789 Oryza sativa
putative protein kinase. OSJNBa0049B20.13.
BAB40081.1 AP003074 Oryza sativa
putative receptor protein kinase. OSJNBa0004G10.30.
BAB18321.1 AP002865 Oryza sativa
putative receptor protein kinase. P0034C11.11.
BAA94517.1 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAB07905.1 AP002835 Oryza sativa
putative S-receptor kinase. P0417G05.13.
BAA94529.2 AP001800 Oryza sativa
Similar to Zea mays S-domain receptor-like protein kinase (AJ010166).
AAB61708.1 U93048 Daucus carota
somatic embryogenesis receptor-like kinase. SERK.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
AAK11674.1 AF339747 Lophopyrum elongatum
protein kinase. ESI47.
AAF43496.1 AF131222 Lophopyrum elongatum
protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and
ABA treatment.

BAA94528.1 AP001800 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2 BAC T20K24; putative receptor-like protein
kinase (AC002392).
BAA94510.1 AB041504 Populus nigra
protein kinase 2. PnPK2.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
AAB47421.1 U59316 Lycopersicon esculentum
serine/threonine protein kinase Pto. pto. allele of Pto bacterial speck disease resistance gene in
tomato,
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
SEQ ID NO: 814
AAF23903.1 AF194416 Oryza sativa
MAP kinase homolog. MAPK2. RMAPK2.
AAD52659.1 AF177392 Oryza sativa
blast and wounding induced mitogen-activated protein kinase. BWMK1. BWMK1 MAP
kinase.
AAF23902.1 AF194415 Oryza sativa
MAP kinase homolog, MAPK1. RMAPK1.
AAD28617.1 AF129087 Medicago sativa
mitogen-activated protein kinase homologue. TDY1.
CAB61750.1 AJ275316 Cicer arietinum
MAP kinase protein.
AAB57843.1 U96716 Selaginella lepidophylla
MAP kinase-like protein. sdhn-6r.
AAF65766.1 AF242308 Euphorbia esula
mitogen-activated protein kinase. regulated by tyrosine and threonine phosphorylation.
BAB18271.1 AB035141 Chlamydomonas reinhardtii
mitogen-activated protein kinase. CrMPK2.
CAA58761.1 X83880 Nicotiana tabacum
p45Ntf4 serine/threonine protein kinase. ntf4.
CAA47099.1 X66469 Medicago sativa
MAP Kinase. MSK7.

AAB41548.1 L07042 Medicago sativa
autophosphorylating serine/threonine protein kinase. MAP kinase. MsERK1.
AAB58396.1 U94192 Nicotiana tabacum
salicylic acid-activated MAP kinase. NtSIPK.
CAA50036.1 X70703 Pisum sativum
MAP kinase homologue. PSMAPKIN.
AAF73236.1 AF153061 Pisum sativum
MAP kinase 3. Mapk3. PsMAPK3.
BAB32406.1 AB055515 Nicotiana tabacum
NRK1 MAPK. nrkl. A tobacco MAPK that is phosphorylated and activated by NQK1.
CAA58760.1 X83879 Nicotiana tabacum
p43Nft6 serine/threonine protein kinase. ntf6.
CAA57721.1 X82270 Medicago sativa
protein kinase. MMK4.
AAF81420.1 AF247136 Capsicum annuum
MAP kinase 2. MK2. CAMK2; wound, UV-C, and cold-inducible expression.
AAD37790.1 AF149424 Ipomoea batatas
MAP kinase.
AAG40580.1 AF216316 Oryza sativa
MAP kinase 2. protein kinase; MAP2.
CAB37188.1 AJ224336 Medicago sativa
MAP kinase. MMK3.
AAF61238.1 AF241166 Oryza sativa
MAP kinase MAPK2.
AAG40581.1 AF216317 Oryza sativa
MAP kinase 3. protein kinase; MAP3.
CAB61889.1 AJ251330 Oryza sativa
protein kinase. MAPK4 protein. mapk4.
CAA73323.1 Y12785 Petroselinum crispum
MAP kinase I.
CAC13967.1 AJ250311 Oryza sativa
protein kinase. MAPK2 protein. mapk2.
CAA56314.1 X79993 Avena sativa
MAP KINASE. Asmap1.
CAA49592.1 X69971 Nicotiana tabacum
serine/threonine protein kinase. NTF3.
CAA58466.1 X83440 Petunia x hybrida
MAP/ERK kinase 1. MEK1.
AAK01710.1 AF332873 Oryza sativa
MAP kinase BIMK1.
AAG40579.1 AF216315 Oryza sativa
MAP kinase 1. protein kinase; MAP1.

CAA57719.1 X82268 Medicago sativa
protein kinase. MMK2.
AAC28850.1 AF079318 Triticum aestivum
protein kinase. MAP kinase homolog. WCK-1.
AAD32204.1 AF134730 Prunus armeniaca
putative mitogen-activated protein kinase MAPK. MAP kinase.
BAA74734.1 AB016802 Zea mays
MAP kinase 5. ZmMPK5.
AAF73257.1 AF154329 Pisum sativum
MAP kinase PsMAPK2. Mapk2.
BAA09600.1 D61377 Nicotiana tabacum
WIPK. MAP (mitogen-activated protein) kinase.
AAF81419.1 AF247135 Capsicum annuum
MAP kinase 1. MK1. wound and UV-C inducible expression.
BAA74733.1 AB016801 Zea mays
MAP kinase 4. ZmMPK4.
CAA05328.1 AJ002314 Nicotiana tabacum
serine/threonine protein kinase. shaggy-like kinase 111. NSK 111.
CAA05329.1 AJ002315 Nicotiana tabacum
shaggy-like kinase 59. NSK 59.
CAA11861.1 AJ224164 Petunia x hybrida
shaggy kinase 6. PSK6.
CAA58595.1 X83620 Petunia x hybrida
Petunia Shaggy kinase 6. PSK6.
CAA11862.1 AJ224165 Petunia x hybrida
shaggy kinase 7. PSK7.
CAA58594.1 X83619 Petunia x hybrida
Petunia Shaggy kinase 4. PSK4.
AAA92823.1 U18365 Brassica napus
cyclin dependent protein kinase homolog; similar to moth bean p34cdc2 protein, PIR
Accession Number JQ2243.
BAA92214.1 AP001278 Oryza sativa
ESTs C22403(C50132),C22404(C50132) correspond to a region of the predicted gene.
Similar to Arabidopsis thaliana shaggy related protein kinase ASK-gamma. (P43289).
CAA67554.1 X99100 Trifolium repens
protein kinase. trK.
SEQ ID NO: 816
CAA65065.1 X95759 Solanum tuberosum
glycogen (starch) synthase.
CAA64173.1 X94400 Solanum tuberosum
soluble-starch-synthase. SSSIII.

AAC14014.1 AF023159 Zea mays
starch synthase DULL1. dull1. similar to potato starch synthase SSIII; likely to be the maize
starch synthase defined biochemically as SSII.
CAB40374.1 AJ225088 Vigna unguiculata
ADP-glucose-starch glucosyltransferase. Starch synthase isoform SS III.
AAF88000.1 AF258609 Aegilops tauschii
starch synthase III.
AAF87999.1 AF258608 Triticum aestivum
starch synthase III. wSSIII.
CAB40375.1 AJ006752 Vigna unguiculata
ADP-glucose starch glucosyltransferase. starch synthase, isoform V.
AAC14015.1 AF023160 Zea mays
starch synthase DULL1. dull1. similar to potato starch synthase SSIII; like to be the maize
starch synthase defined biochemically as SSII.
AAC17971.2 AF026422 Chlamydomonas reinhardtii
soluble starch synthase. ADP-glucose:alpha-1, 4-D-glucan-4-alpha-D-glucosyltransferase.
AAD13342.1 AF019297 Zea mays
starch synthase isoform zSTSII-2. zSSIIb.
CAB86618.1 AJ269502 Triticum aestivum
transfers the glucosyl unit of ADP glucose to the non-reducing end of an alpha 1,4. starch
synthase IIa-1. wSs2a-1.
CAA61269.1 X88790 Pisum sativum
glycogen (starch) synthase.
CAB96626.1 AJ269503 Triticum aestivum
transfers the glucosyl unit of ADP glucose to the non-reducing end of an alpha 1,4. starch
synthase IIa-2. wSs2a-2.
CAB96627.1 AJ269504 Triticum aestivum
transfers the glucosyl unit of ADP glucose to the non-reducing end of an alpha 1,4. starch
synthase IIa-3. wSs2a-3.
CAA71442.1 Y10416 Solanum tuberosum
soluble starch (bacterial glycogen) synthase. SS I.
AAD53263.1 AF155217 Triticum aestivum
starch synthase IIA.
AAF37876.1 AF234163 Hordeum vulgare
starch synthase I. SSI.
CAB99209.1 AJ292521 Triticum aestivum
essential for starch synthesis. starch synthase I-1. wSsI-1.
AAD54661.1 AF091803 Triticum aestivum
starch synthase I.
AAB17085.1 U66377 Triticum aestivum
starch synthase. TaSS. EC 2.4.1.11.
CAB99210.1 AJ292522 Triticum aestivum
essential for starch synthesis. starch synthase I-2. wSsI-2.

AAF03557.1 AF091802 Aegilops tauschii
starch synthase I.
AAD13341.1 AF019296 Zea mays
starch synthase isoform zSTSII-1. zSSIIa.
AAC17969.2 AF026420 Chlamydomonas reinhardtii
ADP-Glucose:alpha-1, 4-D-glucan-4-alpha-D-glucosyltransferase. granule-bound starch
synthase I precursor. STA2. GBSSI.
BAA82346.1 AB029546 Phaseolus vulgaris
granule-bound starch synthase I. GBSSI.
CAA37732.1 X53694 Oryza sativa
starch synthase.
CAA52273.1 X74160 Manihot esculenta
starch (bacterial glycogen) synthase. GBSS.
AAF72561.1 AF141954 Oryza sativa
granule-bound starch synthase. Waxy.
CAA46294.1 X65183 Oryza sativa
glycogen (starch) synthase. waxy gene. starch granule enzyme.
AAF72562.1 AF141955 Oryza sativa
granule-bound starch synthase. Waxy.
CAA44065.1 X62134 Oryza sativa
starch biosynthesis. starch (bacterial glycogen) synthase. Wx.
AAB02197.1 U48227 Triticum aestivum
soluble starch synthase.
AAF13168.1 AF173900 Manihot esculenta
granule bound starch synthase II precursor. GBSSII. MEGBSSII.
CAA45472.1 X64108 Oryza sativa
starch granule-bound starch synthase. waxy.
AAC61675.2 AF031162 Oryza sativa
granule-bound starch synthase. Waxy.
AAC70779.1 AF097922 Astragalus membranaceus
granule-bound glycogen (starch) synthase. GBSS.
CAA06958.1 AJ006293 Antirrhinum majus
granule-bound starch synthase. waxy.
AAC19119.1 AF068834 Ipomoea batatas
starch synthase.
AAD49850.1 AF165890 Oryza sativa subsp. japonica
soluble starch synthase.
BAA81848.1 AB026295 Oryza sativa
ESTs AU075322(C11109),D22430(C11109) correspond to a region of the predicted gene.;
Rice gene for soluble starch synthase (SSS1), complete cds (exon1-15).(D38221).
BAA03739.1 D16202 Oryza sativa
soluble starch synthase precursor.

CAA61268.1 X88789 Pisum sativum
glycogen (starch) synthase.
AAA86423.1 U44126 Ipomoea batatas
starch synthase. SPSS67.
AAF14233.1 AF109395 Triticum aestivum
granule-bound starch synthase GBSSII.
CAA41359.1 X58453 Solanum tuberosum
glycogen (starch) synthase. amf. waxy protein, granule-bound starch synthase.
AAG43519.1 AF210699 Perilla frutescens
granule-bound starch synthase. GBSSI. waxy protein.
SEQ ID NO: 819
BAA13032.1 D86180 Pisum sativum
phosphoribosylanthranilate transferase. PAT1.
SEQ ID NO: 822
AAB86850.1 AF031540 Fritillaria agrestis
cytochrome C. cytC.
AAC84135.1 AF101422 Cichorium intybus
cytochrome.
BAA02159.1 D12634 Oryza sativa
'cytochrome C'.
AAA63515.1 M63704 Oryza sativa
cytochrome c. Cc-1.
AAA92712.1 L77113 Helianthus annuus
cytochrome c. cytcl. putative.
AAB70265.1 AF017367 Oryza sativa
cytochrome C.
AAA33084.1 M35173 Chlamydomonas reinhardtii
apocytochrome c (cyc).
CAB16954.1 Z99829 Chlamydomonas reinhardtii
cytochrome c. CYC1.
CAA79708.1 Z21499 Stellaria longipes
mitochondrial cytochrome c.
SEQ ID NO: 823
BAA02159.1 D12634 Oryza sativa
'cytochrome C'.
AAA63515.1 M63704 Oryza sativa
cytochrome c. Cc-1.
AAB86850.1 AF031540 Fritillaria agrestis
cytochrome C. cytC.
AAC84135.1 AF101422 Cichorium intybus
cytochrome.

AAA92712.1 L77113 Helianthus annuus
cytochrome c. cytc1. putative.
AAB70265.1 AF017367 Oryza sativa
cytochrome C.
AAA33084.1 M35173 Chlamydomonas reinhardtii
apocytochrome c (cyc).
CAB16954.1 Z99829 Chlamydomonas reinhardtii
cytochrome c. CYC1.
CAA79708.1 Z21499 Stellaria longipes
mitochondrial cytochrome c.
SEQ ID NO: 825
BAB17113.1 AP002866 Oryza sativa
putative white protein; ATP-binding cassette transporter. P0410E01.34.
AAF43869.1 AF166114 Chloroplast Mesostigma viride
probable transport protein. cysA.
BAA90508.1 AP001111 Oryza sativa
similar to ABC transporter of Arabidopsis thaliana (AC004697).
AAD54843.1 AF137379 Chloroplast Nephroselmis olivacea
probable transport protein. cysA.
BAA57907.1 AB001684 Chlorella vulgaris
sulfate transport system permease protein. cysA.
BAA90507.1 AP001111 Oryza sativa
similar to ABC transporter of Arabidopsis thaliana (AC004697).
BAB40032.1 AP003046 Oryza sativa
putative ABC transporter. P0445D12.3.
AAG49003.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4b; GC splice donor confirmed by cDNA alignment and
comparative sequence.
BAB21275.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.6.
AAG45492.1 AY013245 Oryza sativa
36I5.4. putative ABC transporter; GC splice donor confirmed by cDNA alignment and
comparative sequence.
AAG49002.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4a; GC splice donor confirmed by cDNA and comparative
sequencing.
BAB21276.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.7. contains EST D22472(C1173).
AAD10836.1 U52079 Solanum tuberosum
P-glycoprotein. pmdrl. binds ATP; ATPase; transporter; transmembrane protein.
BAB21279.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.10. contains ESTs
AU065360(R3463),AU101680(R3463).
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BAB21273.1 AP002844 Oryza sativa
putative ABC transporter protein. P0410E03.4.
BAA83352.1 AP000391 Oryza sativa
ESTs AU067992(C11433), AU077424(C11433) correspond to a region of the predicted gene.;
Similar to ABC transporter-7 (U43892).
BAA96612.1 AP002482 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2, BAC F14M4; putative ABC transporter
(AC004411).
SEQ ID NO: 827
AAG34803.1 AF243368 Glycine max
glutathione S-transferase GST 13.
AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAF64450.1 AF239928 Euphorbia esula
glutathione S-transferase. similar to auxin-inducible GST.
AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
AAG34805.1 AF243370 Glycine max
glutathione S-transferase GST 15.
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AAG34831.1 AF244688 Zea mays
glutathione S-transferase GST 23.
AAG34832.1 AF244689 Zea mays
glutathione S-transferase GST 24.
AAG34849.1 AF244706 Zea mays
glutathione S-transferase GST 41.
AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
CAA09187.1 AJ010448 Alopecurus myosuroides
glutathione transferase. GST1a.
AAG34829.1 AF244686 Zea mays
glutathione S-transferase GST 21.
CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.
AAA68430.1 J03679 Solanum tuberosum
glutathione S-transferase. gst1. previously called pathogenesis-related protein; prp1-1.
AAG34836.1 AF244693 Zea mays
glutathione S-transferase GST 28.
AAG34837.1 AF244694 Zea mays
glutathione S-transferase GST 29.
AAG34800.1 AF243365 Glycine max
glutathione S-transferase GST 10.
AAC18566.1 AF048978 Glycine max
2,4-D inducible glutathione S-transferase. GSTa.
AAC32118.1 AF051214 Picea mariana
probable glutathione S-transferase. Sb18. similar to Nicotiana tabacum probable glutathione
S-transferase encoded by GenBank Accession Number X56266.
AAF22517.1 AF118924 Papaver somniferum
glutathione S-transferase 1. GST1.
AAF22518.1 AF118925 Papaver somniferum
glutathione S-transferase 2. GST2.
AAG32471.1 AF309378 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU4.
AAG34806.1 AF243371 Glycine max
glutathione S-transferase GST 16.
CAA04391.1 AJ000923 Carica papaya
glutathione transferase. PGST1.
AAG32472.1 AF309379 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU3.
AAG34833.1 AF244690 Zea mays
glutathione S-transferase GST 25.
CAA71784.1 Y10820 Glycine max
glutathione transferase.

AAG34847.1 AF244704 Zea mays
glutathione S-transferase GST 39.
AAF22519.1 AF118926 Papaver somniferum
glutathione S-transferase 3. GST3.
SEQ ID NO: 828
AAG34803.1 AF243368 Glycine max
glutathione S-transferase GST 13.
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAF64450.1 AF239928 Euphorbia esula
glutathione S-transferase. similar to auxin-inducible GST.
AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.

AAF64450.1 AF239928 Euphorbia esula
glutathione S-transferase. similar to auxin-inducible GST.
AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.
AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34805.1 AF243370 Glycine max
glutathione S-transferase GST 15.
AAC18566.1 AF048978 Glycine max
2,4-D inducible glutathione S-transferase. GSTa.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34800.1 AF243365 Glycine max
glutathione S-transferase GST 10.
AAG34829.1 AF244686 Zea mays
glutathione S-transferase GST 21.
AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
AAG34837.1 AF244694 Zea mays
glutathione S-transferase GST 29.
CAA09187.1 AJ010448 Alopecurus myosuroides
glutathione transferase. GST1a.

CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.
AAG34849.1 AF244706 Zea mays
glutathione S-transferase GST 41.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
AAG34806.1 AF243371 Glycine max
glutathione S-transferase GST 16.
CAA71784.1 Y10820 Glycine max
glutathione transferase.
AAA68430.1 J03679 Solanum tuberosum
glutathione S-transferase. gst1. previously called pathogenesis-related protein; prp1-1.
CAA04391.1 AJ000923 Carica papaya
glutathione transferase. PGST1.
AAG34836.1 AF244693 Zea mays
glutathione S-transferase GST 28.
AAG34831.1 AF244688 Zea mays
glutathione S-transferase GST 23.
AAG34847.1 AF244704 Zea mays
glutathione S-transferase GST 39.
AAC32118.1 AF051214 Picea mariana
probable glutathione S-transferase. Sb18. similar to Nicotiana tabacum probable glutathione
S-transferase encoded by GenBank Accession Number X56266.
AAF29773.1 AF159229 Gossypium hirsutum
glutathione S-transferase. GST.
AAG32472.1 AF309379 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU3.
AAG41204.1 AF321437 Suaeda maritima
glutathione transferase.
CAC24549.1 AJ296343 Cichorium intybus x Cichorium endivia
glutathione S-transferase. chi-GST1. auxin-induced GST.
SEQ ID NO: 830
AAD37699.1 AF145730 Oryza sativa
homeodomain leucine zipper protein. Oshox6. transcription factor.
BAA93461.1 AB028073 Physcomitrella patens
homeobox protein PpHB2. PpHB2. homeodomain-leucine zipper gene.
AAF01765.1 AF184278 Glycine max
homeodomain-leucine zipper protein 57. Hdl57. transcription factor.
AAF01764.2 AF184277 Glycine max
homeodomain-leucine zipper protein 56. Hdl56. transcription factor.
BAA93466.1 AB028078 Physcomitrella patens
homeobox protein PpHB7. PpHB7. homeodomain-leucine zipper gene.

CAB67118.1 Y17306 Lycopersicon esculentum
homeodomain protein. h52.
AAF73482.1 AF268422 Brassica rapa subsp. pekinensis
hb-6-like protein. transcription factor; similar to Arabidopsis thaliana hb-6 protein.
AAD37697.1 AF145728 Oryza sativa
homeodomain leucine zipper protein. Oshox4. transcription factor.
BAA21017.1 D26578 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 761-940; leucine zipper at nt 941-1048.
BAA05624.1 D26575 Daucus carota
transcriptional regulator. DNA-binding protein. homeodomain at nt 520-699; leucine zipper at nt 700-805.
BAA93460.1 AB028072 Physcomitrella patens
homeobox protein PpHB1. PpHB1. homeodomain-leucine zipper gene.
BAA93464.1 AB028076 Physcomitrella patens
homeobox protein PpHB5. PpHB5. homeodomain-leucine zipper gene.
BAA93467.1 AB028079 Physcomitrella patens
homeobox protein PpHB8. PpHB8. homeodomain-leucine zipper gene.
BAA93465.1 AB028077 Physcomitrella patens
homeobox protein PpHB6. PpHB6. homeodomain-leucine zipper gene.
BAA05625.1 D26576 Daucus carota
transcriptiional regulator. DNA-binding protein. homeodomain at nt 300-479; leucine zipper
at nt 480-587.
at nt 480-587.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. CAA64491.1 X95193 Pimpinella brachycarpa
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. CAA64491.1 X95193 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. CAA64491.1 X95193 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. BAA93463.1 AB028075 Physcomitrella patens
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. CAA64491.1 X95193 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. BAA93463.1 AB028075 Physcomitrella patens homeobox protein PpHB4. PpHB4. homeodomain-leucine zipper gene.
at nt 480-587. BAA93468.1 AB028080 Physcomitrella patens homeobox protein PpHB9. PpHB9. homeodomain-leucine zipper gene. BAA05623.1 D26574 Daucus carota trancriptional regulator. DNA-binding protein. homeodomain at nt 498-677; leucine zipper at nt 678-785. BAA05622.1 D26573 Daucus carota transcriptional regulator. DNA-binding protein. homeodomain at nt 585-764; leucine zipper at nt 765-851. AAD37698.1 AF145729 Oryza sativa homeodomain leucine zipper protein. Oshox5. transcription factor. CAA64221.1 X94449 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. PHZ4. CAA64152.1 X94375 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. CAA64491.1 X95193 Pimpinella brachycarpa transcription activator. homeobox-leucine zipper protein. BAA93463.1 AB028075 Physcomitrella patens

AAD37695.1 AF145726 Oryza sativa				
homeodomain leucine zipper protein. Oshox2. transcription factor.				
CAA65456.2 X96681 Oryza sativa				
transcription factor. DNA-binding protein. Oshox1. homeodomain leucine zipper gene.				
AAF19980.1 AF211193 Oryza sativa				
homeodomain-leucine zipper transcription factor. Hox1. hox1.				
AAK31270.1 AC079890 Oryza sativa				
homeodomain leucine zipper protein hox1. OSJNBb0089A17.12.				
CAA63222.1 X92489 Glycine max				
transcription activator. homeobox-leucine zipper protein.				
CAA06717.1 AJ005820 Craterostigma plantagineum				
transcription factor. homeodomain leucine zipper protein. hb-1.				
AAA79778.1 L48485 Helianthus annuus				
homeodomain protein. putative.				
SEQ ID NO: 831				
CAA06334.1 AJ005077 Lycopersicon esculentum				
protein kinase. TCTR2 protein. TCTR2.				
AAG31141.1 AF305911 Oryza sativa				
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.				
AAG31142.1 AF305912 Hordeum vulgare				
EDR1. EDR1. MAP kinase kinase kinase; similar to Arabidopsis thaliana EDR1.				
AAK30005.1 AY029067 Rosa hybrid cultivar				
CTR2 protein kinase.				
AAD46406.1 AF096250 Lycopersicon esculentum				
ethylene-responsive protein kinase TCTR1. ER50. serine/threonine kinase; similar to				
Arabidopsis thaliana negative regulator of the ethylene response pathway encoded by				
GenBank Accession Number L08789.				
CAA73722.1 Y13273 Lycopersicon esculentum				
putative protein kinase.				
AAD10057.1 AF110519 Lycopersicon esculentum				
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit				
ripening inducible CTR1-like protein kinase; TCTR1v.				
AAD10056.1 AF110518 Lycopersicon esculentum				
ethylene-inducible CTR1-like protein kinase. protein kinase homolog; ethylene and fruit ripening inducible CTR1-like protein kinase; TCTR1.				
AAA34002.1 M67449 Glycine max				
protein kinase. PK6.				
AAK11734.1 AY027437 Arachis hypogaea				
serine/threonine/tyrosine kinase.				
BAB16918.1 AP002863 Oryza sativa				
putative protein kinase. P0005A05.22.				
CAC09580.1 AJ298992 Fagus sylvatica				
Abscisic acid (ABA) and calcium induced protein kinase. protein kinase (PK). pkl.				
roseiste acia (ADA) and calcium manced protein kinase. Protein kinase (115, pkr.				

Catharanthus roseus CAA97692.1 Z73295 receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser. Mechanism: autophosphorylation in cis. AAF59906.1 AF197947 Glycine max receptor protein kinase-like protein. CLV1B. AAF59905.1 AF197946 Glycine max receptor protein kinase-like protein. CLV1A. AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAA87852.1 AP000816 Oryza sativa Similar to putative Ser/Thr protein kinase. (AC004218). BAB40094.1 AP003210 Orvza sativa putative receptor protein kinase. OSJNBa0010K01.7. BAA92221.1 AP001278 Oryza sativa Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative protein kinase. (AC004218). CAA08995.1 AJ010091 Brassica napus MAP3K alpha 1 protein kinase. MAP3K alpha 1. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). CAB51834.1 00069 Oryza sativa 11332.5. contains eukaryotic protein kinase domain PF. CAA08997.1 AJ010093 Brassica napus MAP3K beta 1 protein kinase. MAP3K beta 1. CAB54520.1 AJ238845 Brassica napus putative role in cell cycle control. MAP3K epsilon 1 protein kinase. MAP3Ke1. AAF34436.1 AF172282 Oryza sativa similar to mitogen-activated protein kinases. DUPR11.32. BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808), AU056702(S20808). AAG25966.1 AF302082 Nicotiana tabacum cytokinin-regulated kinase 1. CRK1. protein kinase; transcript abundance decreases rapidly after cytokinin treatment. BAA06538.1 D31737 Nicotiana tabacum protein-serine/threonine kinase. AAF76189.1 AF271206 Rosa hybrid cultivar CTR1-like protein kinase. Raf-like protein kinase. BAA84787.1 AP000559 Oryza sativa ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar to receptor protein kinase, ERECTA (AC004484).

BAA83373.1 AP000391 Oryza sativa
ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar
to receptor protein kinase, ERECTA (AC004484).
AAF66615.1 AF142596 Nicotiana tabacum
LRR receptor-like protein kinase.
AAF91322.1 AF244888 Glycine max
receptor-like protein kinase 1. RLK1. GmRLK1.
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
CAA61510.1 X89226 Oryza sativa
leucine-rich repeat/receptor protein kinase. lrk2.
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).
AAF91323.1 AF244889 Glycine max
receptor-like protein kinase 2. RLK2. GmRLK2.
AAF91324.1 AF244890 Glycine max
receptor-like protein kinase 3. RLK3. GmRLK3.
AAF43394.1 AF230501 Oryza sativa subsp. japonica
serine/threonine protein kinase. YK1.
AAK16409.1 AF320086 Zea mays
serine threonine kinase 1. stk1. expressed in mature tassel.
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
BAB39437.1 AP003338 Oryza sativa
receptor-like kinase. OJ1212_B09.6.
AAK11568.1 AF318492 Lycopersicon hirsutum
Pto-like protein kinase B. LhirPtoB.
SEQ ID NO: 832
AAF35901.1 AF230332 Zinnia elegans
expansin 2.
CAC19184.1 AJ291817 Cicer arietinum
expansin.
AAG13982.1 AF297521 Prunus avium
expansin 1. Exp1. PruavExp1.
BAB19676.1 AB029083 Prunus persica
expansin. PchExp1.
AAC33529.1 U93167 Prunus armeniaca
expansin. PA-Exp1.
AAC33530.1 AF038815 Prunus armeniaca
expansin. Exp2.
AAD47901.1 AF085330 Pinus taeda
expansin.

AAB37746.1 U30382 Cucumis sativus

expansin S1 precursor. Cs-EXP1. similar to pollen allergen Lol pI, Lolium perenne, Swiss-Prot Accession Number P14946; former gene name CuExS1; expansin-29 (Ex29) protein.

AAF21101.1 AF159563 Fragaria x ananassa

expansin. Exp2. ripening regulated.

AAB40634.1 U64890 Pinus taeda

expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.

AAB40637.1 U64893 Pinus taeda

expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.

AAB40635.1 U64891 Pinus taeda

expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.

CAB43197.1 AJ239068 Lycopersicon esculentum

cell wall loosening enzyme. expansin2. exp2.

AAB40636.1 U64892 Pinus taeda

expansin. similar to Arabidopsis expansin encoded by GenBank Accession Numbers U30476, U30478, U30480 and U30481, to Cucumis sativus expansin encoded by GenBank Accession Numbers U30382 and U30460, and to rice expansin encoded by GenBank Accession Numbers U30477 and U30479.

AAC64201.1 AF096776 Lycopersicon esculentum

expansin. LeEXP2.

AAD49956.1 AF167360 Rumex palustris

expansin. EXP1.

AAC96081.1 AF049354 Nicotiana tabacum

involved in acid-growth response, alpha-expansin precursor. Nt-EXP5, cell wall protein.

AAC39512.1 AF043284 Gossypium hirsutum

expansin. GhEX1. contains N-terminal signal peptide.

AAB81662.1 U85246 Oryza sativa

expansin. Os-EXP4.

AAG13983.1 AF297522 Prunus avium

expansin 2. Exp2. PruavExp2.

AAF32409.1 AF230276 Triphysaria versicolor

alpha-expansin 3.

AAG32921.1 AF184233 Lycopersicon esculentum

expansin. Exp10.

BAB32732.1 AB049406 Eustoma grandiflorum expansin. Eg Expansin. AAF32411.1 AF230278 Triphysaria versicolor alpha-expansin 1. AAF35902.1 AF230333 Zinnia elegans expansin 3. AAB38074.1 U30477 Oryza sativa induces extension (creep) in plant cell walls. expansin Os-EXP2. Os-EXP2. former gene name RiExB. AAC96080.1 AF049353 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP4. cell wall protein. AAF17570.1 AF202119 Marsilea quadrifolia alpha-expansin. EXP1. Mq-EXP1. CAC06433.1 AJ276007 Festuca pratensis expansin exp2. AAD13633.1 AF059489 Lycopersicon esculentum expansin precursor. Exp5. CAC19183.1 AJ291816 Cicer arietinum expansin. AAF62181.1 AF247163 Oryza sativa alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves. AAF62180.1 AF247162 Oryza sativa
AAF32411.1 AF230278 Triphysaria versicolor alpha-expansin 1. AAF35902.1 AF230333 Zinnia elegans expansin 3. AAB38074.1 U30477 Oryza sativa induces extension (creep) in plant cell walls. expansin Os-EXP2. Os-EXP2. former gene name RiExB. AAC96080.1 AF049353 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP4. cell wall protein. AAF17570.1 AF202119 Marsilea quadrifolia alpha-expansin. EXP1. Mq-EXP1. CAC06433.1 AJ276007 Festuca pratensis expansin exp2. AAD13633.1 AF059489 Lycopersicon esculentum expansin precursor. Exp5. CAC19183.1 AJ291816 Cicer arietinum expansin. AAF62181.1 AF247163 Oryza sativa alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves. AAF62180.1 AF247162 Oryza sativa
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involved in acid-growth response. alpha-expansin precursor. Nt-EXP4. cell wall protein. AAF17570.1 AF202119 Marsilea quadrifolia alpha-expansin. EXP1. Mq-EXP1. CAC06433.1 AJ276007 Festuca pratensis expansin. exp2. AAD13633.1 AF059489 Lycopersicon esculentum expansin precursor. Exp5. CAC19183.1 AJ291816 Cicer arietinum expansin. AAF62181.1 AF247163 Oryza sativa alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves. AAF62180.1 AF247162 Oryza sativa
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AAD13633.1 AF059489 Lycopersicon esculentum expansin precursor. Exp5. CAC19183.1 AJ291816 Cicer arietinum expansin. AAF62181.1 AF247163 Oryza sativa alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves. AAF62180.1 AF247162 Oryza sativa
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AAF62181.1 AF247163 Oryza sativa alpha-expansin OsEXP6. cell wall loosening factor; expressed in internodes and leaves. AAF62180.1 AF247162 Oryza sativa
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AAF62180.1 AF247162 Oryza sativa
alpha avnangin OceVD5 call wall looganing footom avanaged in intermedia larger
alpha-expansin OsEXP5. cell wall loosening factor; expressed in internodes, leaves,
coleoptiles, and roots.
CAB46492.1 AJ243340 Lycopersicon esculentum
expansin9. exp9.
BAA88200.1 AP000837 Oryza sativa
EST AU078708(E60526) corresponds to a region of the predicted gene. Similar to expansin (U85246).
AAF32410.1 AF230277 Triphysaria versicolor
alpha-expansin 2.
AAB37749.1 U30460 Cucumis sativus
expansin S2 precursor. Cs-EXP2. similar to pollen allergen Lol pI, Lolium perenne, Swiss-
Prot Accession Number P14946; former gene name CuExS2; expansin-30 (Ex30) protein.
CAA04385.1 AJ000885 Brassica napus
Cell wall extension in plants. Expansin.
AAF17571.1 AF202120 Regnellidium diphyllum
alpha-expansin. EXP1. Rd-EXP1.
AAD13632.1 AF059488 Lycopersicon esculentum
expansin precursor. Exp4.
CAA06271.2 AJ004997 Lycopersicon esculentum
expansin18. exp18.

AAC63088.1 U82123 Lycopersicon esculentum
expansin. LeEXP1. fruit ripening regulated expansin.
AAC96077.1 AF049350 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP1. cell wall protein.
AAF62182.1 AF247164 Oryza sativa
alpha-expansin OsEXP7. cell wall loosening factor; expressed in internodes and leaves.
CAC18802.1 AJ289154 Glycine max
expansion of cell walls. expansin. dd2/63.
AAC96078.1 AF049351 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP2. cell wall protein.
AAG01875.1 AF291659 Striga asiatica
alpha-expansin 3. Exp3.
CAA69105.1 Y07782 Oryza sativa
expansin. RiExA.
AAC96079.1 AF049352 Nicotiana tabacum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.
SEQ ID NO: 833
AAA34030.1 J03492 Spinacia oleracea
glycolate oxidase (EC 1.1.3.15).
AAB40396.1 U80071 Mesembryanthemum crystallinum
glycolate oxidase. GOX.
BAA03131.1 D14044 Cucurbita sp.
glycolate oxidase.
AAB82143.1 AF022740 Oryza sativa
glycolate oxidase. GOX.
CAA63482.1 X92888 Lycopersicon esculentum
conversion of glycolate to glyoxylate + H2O2. glycolate oxidase.
AAC32392.1 AF082874 Medicago sativa
glycolate oxidase.
AAC33509.1 U62485 Nicotiana tabacum
photorespiration. glycolate oxidase. GLO.
AAF03097.1 AF162196 Lactuca sativa
glycolate oxidase.
SEQ ID NO: 838
CAA06770.1 AJ005928 Brassica napus
squalene epoxidase homologue. Sqp1;2.
CAA06773.1 AJ005931 Brassica napus
squalene epoxidase homologue. Sqp1;1.
BAA24448.1 AB003516 Panax ginseng
squalene epoxidase.
CAA06223.1 AJ004923 Lycopersicon esculentum
Squalene epoxidase. ERG.

SEQ ID NO: 840
BAB12686.1 AP002746 Oryza sativa
putative pyrophosphate-dependent phosphofructo-1-kinase. P0671B11.1. contains ESTs
AU068014(C11507),C28532(C61484),AU090544(C61415).
BAA99438.1 AP002743 Oryza sativa
putative pyrophosphate-dependent phosphofructo-1-kinase. P0710E05.25. contains ESTs AU068014(C11507),C28532(C61484),AU090544(C61415).
AAB88875.1 U93272 Prunus armeniaca
pyrophosphate-dependent phosphofructo-1-kinase.
CAA83683.1 Z32850 Ricinus communis
pyrophosphate-dependent phosphofructokinase beta subunit.
AAC67587.1 AF095521 Citrus x paradisi
pyrophosphate-dependent phosphofructokinase alpha subunit. PPi-PFKa.
AAA63452.1 M55191 Solanum tuberosum
pyrophosphate-fructose 6-phosphate 1-phosphotransferase beta-subunit.
AAC67586.1 AF095520 Citrus x paradisi
pyrophosphate-dependent phosphofructokinase beta subunit. PPi-PFKb. PFP.
AAA63451.1 M55190 Solanum tuberosum
pyrophosphate-fructose 6-phosphate 1-phosphotransferase alpha-subunit.
CAA83682.1 Z32849 Ricinus communis
pyrophosphate-dependent phosphofructokinase alpha subunit.
SEQ ID NO: 841
AAG60182.1 AC084763 Oryza sativa
putative ethylene-responsive element binding protein. OSJNBa0027P10.12.
AAK31279.1 AC079890 Oryza sativa
putative ethylene-responsive element binding protein. OSJNBb0089A17.16.
AAG43545.1 AF211527 Nicotiana tabacum
Avr9/Cf-9 rapidly elicited protein 1. ACRE1. similar to EREBP transcription factors.
AAF63205.1 AF245119 Mesembryanthemum crystallinum
AP2-related transcription factor. CDBP. stress induced transcription factor.
BAA07321.1 D38123 Nicotiana tabacum
ERF1. ethylene-responsive transcription factor.
BAA97122.1 AB016264 Nicotiana sylvestris
ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesis-
related) gene of higher plant. ethylene-responsive element binding factor. nserf2.
CAB93940.1 AJ238740 Catharanthus roseus
putative transcription factor. AP2-domain DNA-binding protein. orca2.
BAA87068.1 AB035270 Matricaria chamomilla
ethylene-responsive element binding protein1 homolog. McEREBP1.
BAA97124.1 AB016266 Nicotiana sylvestris
ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesis-
related) gene of higher plant. ethylene-responsive element binding factor. nserf4.

CAB96900.1 AJ251250 Catharanthus roseus transcription factor. AP2-domain DNA-binding protein. orca3. CAB96899.1 AJ251249 Catharanthus roseus transcription factor. AP2-domain DNA-binding protein. orca3. AAC62619.1 AF057373 Nicotiana tabacum transcription factor. ethylene response element binding protein 1. EREBP1. BAA97123.1 AB016265 Nicotiana sylvestris ERF (EREBP); ethylene-responsive element binding factor for basic PR (Pathogenesisrelated) gene of higher plant. ethylene-responsive element binding factor. nserf3. AAC24587.1 AF071893 Prunus armeniaca AP2 domain containing protein. AP2DCP. CAC12822.1 AJ299252 Nicotiana tabacum AP2 domain-containing transcription factor. ap2. AAF76898.1 AF274033 Atriplex hortensis apetala2 domain-containing protein. BAA94514.2 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 4, BAC clone F9D16; putative Ap2 domain protein (AL035394). AAC14323.1 AF058827 Nicotiana tabacum TSI1. Tsi1. contains putative AP2 DNA-binding domain; similar to Pti6. AAD00708.1 U91857 Stylosanthes hamata ethylene-responsive element binding protein homolog, similar to EREBP1, -2, -3 and -4 proteins encoded by GenBank Accession Numbers D38123, D38126, D38124, and D38125 respectively. BAA76734.1 AB024575 Nicotiana tabacum ethylene responsive element binding factor. BAB03248.1 AB037183 Oryza sativa ERF protein transcriptional repressor, ethylene responsive element binding factor3, osERF3, BAB16083.1 AB036883 Oryza sativa transcriptional repressor. osERF3. osERF3. ERF protein family ERF3 associated repression domain. AAF23899.1 AF193803 Oryza sativa transcription factor EREBP1. EREBP/AP2-like transcription factor. AAF05606.1 AF190770 Oryza sativa EREBP-like protein. tsh1. TSH1; induced by ethylene. CAB93939.1 AJ238739 Catharanthus roseus putative transcription factor. AP2-domain DNA-binding protein. orca1. BAA78738.1 AB023482 Oryza sativa EST AU055776(S20048) corresponds to a region of the predicted gene.; Similar to Arabidopsis thaliana AP2 domain containing protein RAP2.10 mRNA, partial cds.(AF003103). AAG43548.1 AF211530 Nicotiana tabacum Avr9/Cf-9 rapidly elicited protein 111A. ACRE111A. similar to EREBP transcription factors.

AAG43549.1 AF211531 Nicotiana tabacum

Avr9/Cf-9 rapidly elicited protein 111B. ACRE111B. similar to EREBP transcription factors.

BAA99376.1 AP002526 Oryza sativa

ESTs AU093391(E60370), AU091593(C60458), AU093392(E60370) correspond to a region of the predicted gene. Similar to Arabidopsis thaliana BAC F21J9; AP2 domain protein. (AC000103).

AAK31271.1 AC079890 Oryza sativa

putative transcriptional factor. OSJNBb0089A17.22.

AAK01089.1 AF298231 Hordeum vulgare

CBF3-like protein BCBF3. BCBF3. AP2 domain protein; DRE binding factor.

AAG59618.1 AF239616 Hordeum vulgare

CRT/DRE-binding factor. CBF.

AAC49567.1 U41466 Zea mays

Glossy15. Glossy15. AP2 DNA-binding domain protein; similar to the Arabidopsis floral homeotic gene APETALA2; maize AP2-domain regulator of leaf epidermal traits; homeotic regulator of leaf epidermal cell identity; allele: W64A; putative transcription factor.

SEQ ID NO: 842

AAC32034.1 AF023472 Hordeum vulgare

peptide transporter. ptr1. PTR1; integral membrane protein.

BAB40113.1 AP003311 Oryza sativa

putative peptide transport protein. P0024G09.4. contains ESTs

D40448(S2437),C71800(E0368),AU102190(E2393),

AU055921(S20154),AU102191(E2393),AU055922(S20154),

C98524(E0368), AU097146(S2437).

BAB16458.1 AP002483 Oryza sativa

putative peptide transport protein. P0019D06.16. contains ESTs

D40448(S2437),C71800(E0368),AU102190(E2393),

AU055921(S20154),AU102191(E2393),AU055922(S20154),

C98524(E0368),AU097146(S2437).

AAD01600.1 AF016713 Lycopersicon esculentum

LeOPT1. LeOPT1. oligopeptide transporter.

AAF07875.1 AF140606 Oryza sativa

nitrate transporter. NRT1.

AAF20002.1 AF213936 Prunus dulcis

amino acid/peptide transporter. PTR2. similar to transporters of nitrogenous compounds.

AAG46153.1 AC018727 Oryza sativa

putative peptide transporter. OSJNBa0056G17.8.

CAC00544.1 AJ277084 Nicotiana plumbaginifolia

ion transport, putative low-affinity nitrate transporter, nrt1.1.

CAC00545.1 AJ277085 Nicotiana plumbaginifolia

ion transport. putative low-affinity nitrate transporter. nrt1.2.

AAA80582.1 U17987 Brassica napus

putative nitrate transporter. RCH2 protein.

CL COPPOSA L TOTOLOGY
CAC07206.1 AJ278966 Brassica napus
Low-affinity nitrate transporter. nitrate transporter. nrt1.
AAG21898.1 AC026815 Oryza sativa
putative peptide transport protein. OSJNBa0079L16.13.
BAB19758.1 AB052786 Glycine max
putative nitrate transporter NRT1-3. NRT1-3.
AAK15441.1 AC037426 Oryza sativa
putative nitrate transporter. OSJNBb0014I11.9.
AAG21906.1 AC026815 Oryza sativa
putative peptide transport protein. OSJNBa0079L16.9.
BAB19760.1 AB052788 Glycine max
nitrate transporter NRT1-5. NRT1-5.
AAG46154.1 AC018727 Oryza sativa
putative peptide transporter. OSJNBa0056G17.27.
BAB19757.1 AB052785 Glycine max
nitrate transporter NRT1-2. NRT1-2.
BAB19756.1 AB052784 Glycine max
nitrate transporter NRT1-1. NRT1-1.
BAB16322.1 AP002818 Oryza sativa
putative peptide transporter-like protein. P0436E04.4.
AAB69642.1 AF000392 Lotus japonicus
peptide transporter. LjNOD65.
CAA93316.1 Z69370 Cucumis sativus
nitrite transporter. NiTR1.
AAD16016.1 AF080545 Nepenthes alata
peptide transporter. PTR1.
BAB19759.1 AB052787 Glycine max
putative nitrate transporter NRT1-4. NRT1-4.
AAD42860.1 AF154930 Prunus dulcis
transporter-like protein. TLP1.
SEQ ID NO: 847
CAA61980.1 X89890 Bidens pilosa
Calmodulin.
AAF73157.1 AF150059 Brassica napus
calmodulin. CaM1. involved in seed germination.
BAA87825.1 AP000815 Oryza sativa
ESTs AU030013(E50493), AU081341(E50493) correspond to a region of the predicted gene.
Similar to O.sativa gene encoding calmodulin. (Z12828).
CAA67054.1 X98404 Capsicum annuum
calmodulin-2.
AAA87347.1 M88307 Brassica juncea
calmodulin.

AAA33397.1	L18912 Lilium longif	lorum
calcium bindin	protein, signal transduct	ion. calmodulin. putative.
AAG27432.1	AF295637 Elaeis guine	ensis
calmodulin.		
CAA42423.1	K59751 Daucus carota	1
calmodulin. Co	m-1.	
AAG11418.1	AF292108 Prunus aviu	m
calmodulin.		
AAA92681.1	J13882 Pisum sativu	n
calcium-bindir	protein. calmodulin.	
AAB46588.1	J83402 Capsicum and	iuum
calmodulin.		
AAA33706.1	M80836 Petunia x hyl	orida
calmodulin. Ca	M81.	
AAF65511.1	F108889 Capsicum ar	unuum
calmodulin.		
CAA43143.1	K60738 Malus x dome	estica
Calmodulin. C	М.	
AAA19571.1	J10150 Brassica napu	is
calcium bindin	. calmodulin. bcm1.	
CAA78301.1	Z12839 Lilium longif	orum
calcium bindir	protein, signal transduct	ion, calmodulin.
BAA88540.1	AP000969 Oryza sativa	L
		(8) correspond to a region of the predicted gene.
	odulin. (AF042840).	
AAB36130.1	•	
	calmodulin. auxin-regula	ted calmodulin, arCaM. This sequence comes from
Fig. 1; arCaM.	1 F0 400 40 O	
AAC36059.1		ı
calmodulin, Ca		
AAA33901.1	= - 	
		ion. calmodulin. putative.
AAA33900.1	•	S 1 P
	protein, signal transduct	
AAA34237.1	L20691 Vigna radiata	
calmodulin.	710000 0 "	
CAA78288.1	•	· · · · · · · · · · · · · · · · · · ·
	protein, signal transduct	
AAA32938.1 calmodulin.	M27303 Hordeum vul	gare
CAA78287.1	712027	
		ian aalma Julin
calcium bindir	protein, signal transduct	ion, caimodulin.

AAC49587.1 U49105 Triticum aestivum
calmodulin TaCaM4-1. calcium-binding protein.
AAC49586.1 U49104 Triticum aestivum
calmodulin TaCaM3-3. calcium-binding protein.
AAC49583.1 U48692 Triticum aestivum
calmodulin TaCaM2-3. calcium-binding protein.
AAC49585.1 U49103 Triticum aestivum
calmodulin TaCaM3-2. calcium-binding protein.
AAC49584.1 U48693 Triticum aestivum
calmodulin TaCaM3-1. calcium-binding protein.
AAC49582.1 U48691 Triticum aestivum
calmodulin TaCaM2-2. calcium-binding protein.
AAC49580.1 U48689 Triticum aestivum
calmodulin TaCaM1-3. calcium-binding protein.
AAC49579.1 U48688 Triticum aestivum
calmodulin TaCaM1-2. calcium binding protein.
AAC49578.1 U48242 Triticum aestivum
calmodulin TaCaM1-1. calcium-binding.
AAA03580.1 L01431 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-2. putative.
AAC36058.1 AF042839 Oryza sativa
calmodulin. CaM2.
AAA85156.1 U20296 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA34014.1 L01432 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-3. putative.
AAD10244.1 AF030032 Phaseolus vulgaris
calmodulin. CaM. EF-hand protein; calcium-dependent protein; functions in calcium signal
transduction pathways.
CAA36644.1 X52398 Medicago sativa
calmodulin (AA 1-149).
AAA85155.1 U20294 Solanum tuberosum
calcium-binding protein. calmodulin.
AAB68399.1 U79736 Helianthus annuus
calmodulin. HaCaM.
AAA62351.1 U20295 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA34238.1 L20507 Vigna radiata
calmodulin.
AAA85157.1 U20297 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA34013.1 L01430 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-1. putative.

AAC49603.1 U30861 Solanum tuberosum
serine proteinase inhibitor. wound-inducible proteinase inhibitor I.
BAA02823.1 D13662 Nicotiana glauca X Nicotiana langsdorffii
genetic tumor-related proteinase inhibitor I precursor. GTI.
AAA34199.1 K03290 Lycopersicon esculentum
wound-induced proteinase inhibitor I prepropeptide.
AAA34200.1 M13938 Lycopersicon esculentum
proteinase inhibitor I. PIIF.
AAA69780.1 L06137 Solanum tuberosum
proteinase inhibitor I. pin1. putative.
AAA72133.1 L06985 Solanum tuberosum
proteinase inhibitor I. pin1. The 'a' of the first atg is missing.
CAA78259.1 Z12611 Solanum tuberosum
proteinase inhibitor I.
AAA69781.1 L06606 Solanum tuberosum
proteinase inhibitor I. precursor.
CAA48136.1 X67950 Solanum tuberosum
protease inhibitor I. pin1.
CAA47907.1 X67675 Solanum tuberosum
proteinase inhibitor I. pin1.
CAB71340.1 AJ250663 Hordeum vulgare
putative proteinase inhibitor. bci-7. similarity to subtilisin/chymotrypsin inhibitor.
CAA57677.1 X82187 Zea mays
serine proteinase inhibitor. substilin /chymotrypsin-like inhibitor. pis7.
CAA55588.1 X78988 Zea mays
proteinase inhibitor. MPI.
CAA49593.1 X69972 Zea mays
proteinase inhibitor. MPI.
AAA33816.1 M17108 Solanum tuberosum
proteinase inhibitor I. precursor.
CAA57307.1 X81647 Cucurbita maxima
Pumpkin fruit trypsin inhibitor. pfiAF4.
CAA57203.1 X81447 Cucurbita maxima
Pumpkin Fruit Chymotrypsin Inhibitor. pfiBM7.
SEQ ID NO: 859
AAC34855.1 AF082030 Hemerocallis hybrid cultivar
senescence-associated protein 5. SA5. mRNA accumulates in senescing petals and
accumulation is induced by exogenous ABA.
AAG13616.1 AC078840 Oryza sativa
putative senescence-associated protein. OSJNBb0073N24.21.
SEQ ID NO: 864
AAF62403.1 AF212183 Nicotiana tabacum
harpin inducing protein. hin1. similar to hin1 protein.

CAA68848.1 Y07563 Nicotiana tabacum activated during hypersensitive response. hin1. AAB97367.1 AF039532 Oryza sativa harpin induced gene 1 homolog. Hin1. **SEO ID NO: 871** AAC61839.1 AF025430 Papaver somniferum berberine bridge enzyme. bbel. (S)-reticuline:oxygen oxidoreductase (methylene bridge forming). AAB20352.1 S65550 Eschscholzia californica (S)-reticuline:oxygen oxidoreductase (methylene-bridge-forming). /gene="(S)reticuline:oxygen oxidoreductase. This sequence comes from Fig 2; berberine bridge enzyme. AAC39358.1 AF005655 Eschscholzia californica oxidizes the N-methyl group of (S)-reticuline to the berberine bridge carbon C-8 of (S)scoulerine in berberine and benzophenanthridine alkaloid biosynthesis, berberine bridge enzyme. bbe1. covalently-bound FAD-dependent oxidase; elicitor-inducible. AAD17487.1 AF049347 Berberis stolonifera Catalyzes the oxidative cyclization of the N-methyl group of (S)-reticuline into the berberine bridge carbon (C-8) of (S)-scoulerine. berberine bridge enzyme. bbe1. Covalently flavinylated oxidase of isoquinoline alkaloid biosynthesis in plants. **SEO ID NO: 872** AAF98369.1 AF158253 Nicotiana tabacum patatin-like protein 3. PAT3. NtPat3. CAA73328.1 Y12793 Cucumis sativus mobilization of fat during seed germination, patatin-like protein. CAA11042.1 AJ223039 Hevea brasiliensis latex allergen, sequence similarity to patatins. AAF25553.1 AF113546 Hevea brasiliensis

latex protein allergen Hev b 7. putative PLA2; similar to Solanum tubulin patatin encoded by GenBank Accession Number X03932.

CAA11041.1 AJ223038 Hevea brasiliensis

latex allergen. with sequence similarity to patatins.

AAC27724.1 U80598 Hevea brasiliensis

latex patatin homolog. putative PLA2; latex protein allergen; similar to Solanum tubulin patatin encoded by GenBank Accession Number X03932.

AAK27797.1 AF318315 Vigna unguiculata patatin-like protein.

AAK18751.1 AF193067 Vigna unguiculata

patatin-like protein.

AAB08428.1 U68484 Nicotiana tabacum

patatin homolog.

AAD22170.1 AF061282 Sorghum bicolor

patatin-like protein.

AAF98368.1 AF158027 Nicotiana tabacum
patatin-like protein 1. PAT1. NtPat1.
AAD22169.1 AF061282 Sorghum bicolor
patatin-like protein.
CAA81735.1 Z27221 Solanum tuberosum
patatin.
CAA31575.1 X13178 Solanum tuberosum
patatin B2 (AA 1 - 386).
AAA33819.1 M18880 Solanum tuberosum
patatin.
CAA31576.1 X13179 Solanum tuberosum
patatin B1 (377 AA) (1 is 3rd base in codon).
CAA27588.1 X03956 Solanum tuberosum
patatin.
AAA33828.1 M21879 Solanum tuberosum
patatin.
CAA27571.1 X03932 Solanum tuberosum
patatin.
CAA25592.1 X01125 Solanum tuberosum
patatin.
AAA66198.1 U09331 Solanum brevidens
patatin precursor.
AAB08427.1 U68483 Nicotiana tabacum
patatin homolog.
AAF98370.1 AF158254 Nicotiana tabacum
patatin-like protein 2. PAT2.
AAD22149.1 AF061282 Sorghum bicolor
patatin-like protein. similar to the EST sequences E0496(panicle at flowering stage), R2382
(root), R2382 (root), S4036 (shoot), S3728 (shoot), S13457 (green shoot).
SEQ ID NO: 875
BAA93022.1 AP001552 Oryza sativa
ESTs C74776(E51022),C26123(C116681) correspond to a region of the predicted gene.
Similar to Arabidopsis thaliana cultivar Landsberg extra-large G-protein (AF060942).
SEQ ID NO: 876
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.

BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808),AU056702(S20808). AAA33915.1 L27821 Oryza sativa receptor type serine/threonine kinase. protein kinase. BAA82556.1 AB030083 Populus nigra lectin-like protein kinase. PnLPK. AAK11674.1 AF339747 Lophopyrum elongatum protein kinase. ESI47. AAF43496.1 AF131222 Lophopyrum elongatum protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and ABA treatment. AAG59657.1 AC084319 Oryza sativa putative protein kinase. OSJNBa0004B24.20. AAG03090.1 AC073405 Oryza sativa Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). AAB93834.1 U82481 Zea mays KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase. AAF66615.1 AF142596 Nicotiana tabacum LRR receptor-like protein kinase. AAG25966.1 AF302082 Nicotiana tabacum cytokinin-regulated kinase 1. CRK1. protein kinase; transcript abundance decreases rapidly after cytokinin treatment. AAB09771.1 U67422 Zea mays CRINKLY4 precursor. cr4. receptor kinase homolog. Oryza sativa AAF34428.1 AF172282 receptor-like protein kinase. DUPR11.18. BAB07906.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.14. AAC23542.1 U20948 Ipomoea trifida receptor protein kinase. IRK1. BAA94516.1 AP001800 Oryza sativa Similar to Zea mays S-domain receptor-like protein kinase (AJ010166). BAA87852.1 AP000816 Oryza sativa Similar to putative Ser/Thr protein kinase. (AC004218). BAA92221.1 AP001278 Oryza sativa Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative protein kinase. (AC004218). CAA73134.1 Y12531 Brassica oleracea serine/threonine kinase. BRLK. BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821).

3

AAG16628.1 AY007545 Brassica napus
protein serine/threonine kinase BNK1.
CAB51834.1 00069 Oryza sativa
11332.5. contains eukaryotic protein kinase domain PF.
BAA06538.1 D31737 Nicotiana tabacum
protein-serine/threonine kinase.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392).
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413. BAA07576.1 D38563 Brassica rapa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413. BAA07576.1 D38563 Brassica rapa receptor protein kinase SRK8.
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413. BAA07576.1 D38563 Brassica rapa receptor protein kinase SRK8. BAB07999.1 AP002525 Oryza sativa
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413. BAA07576.1 D38563 Brassica rapa receptor protein kinase SRK8. BAB07999.1 AP002525 Oryza sativa putative protein kinase. P0462H08.22. contains EST C22619(S11214).
kinase domain: 1412-2554. AAA62232.1 U00443 Brassica napus S-receptor kinase. protein contains an immunoglobulin-like domain. BAA23676.1 AB000970 Brassica rapa receptor kinase 1. BcRK1. BAB07904.1 AP002835 Oryza sativa putative S-receptor kinase. P0417G05.12. BAA94518.1 AP001800 Oryza sativa Similar to Arabidopsis thaliana chromosome 2 section 111 of 255; putative receptor-like protein kinase (AC002392). BAA07577.2 D38564 Brassica rapa receptor protein kinase SRK12. CAA74662.1 Y14286 Brassica oleracea SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413. BAA07576.1 D38563 Brassica rapa receptor protein kinase SRK8. BAB07999.1 AP002525 Oryza sativa

BAB03429.1 AP002817 Oryza sativa
EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587).
SEQ ID NO: 883
•
rice EST AU030811, similar to rice Ca+2-ATPase (U82966).
AAF73985.1 AF096871 Zea mays
calcium pump. calcium ATPase. cap1. CAA63790.1 X93592 Dunaliella bioculata
P-type ATPase. ca1. calcium pumping; CA1.
AAD11618.1 AF050496 Lycopersicon esculentum
Ca2+-ATPase. LCA1B; alternative transcript.
AAA34138.1 M96324 Lycopersicon esculentum
The calcium ATPase is a calcium ion pump. Ca2+-ATPase. LCA1.
AAB58910.1 U82966 Oryza sativa
Ca2+-ATPase.
AAD11617.1 AF050495 Lycopersicon esculentum
Ca2+-ATPase. LCA1A; alternative transcript.
AAG28435.1 AF195028 Glycine max
plasma membrane Ca2+-ATPase. SCA1.
AAG28436.1 AF195029 Glycine max
plasma membrane Ca2+-ATPase. SCA2.
CAA68234.1 X99972 Brassica oleracea
calmodulin-stimulated calcium-ATPase.
AAD31896.1 AF145478 Mesembryanthemum crystallinum
calcium ATPase.
AAB60276.1 U09989 Zea mays
H(+)-transporting ATPase. Mha1.
CAB69824.1 AJ271439 Prunus persica
plasma membrane H+ ATPase. PPA1.
AAD46187.1 AF156683 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma8.
BAA01058.1 D10207 Oryza sativa
H-ATPase. OSA1.
AAB49042.1 U54690 Dunaliella acidophila
plasma membrane proton ATPase. dha1. DaDHA1; proton pump.
AAA34173.1 M60166 Lycopersicon esculentum
H+-ATPase. LHA1.
CAA52107.1 X73901 Dunaliella bioculata
plasma membrane ATPase. pma1.

AAB35314.2 S79323 Vicia faba
plasma membrane H(+)-ATPase precursor. plasma membrane H(+)-ATPase. This sequence
comes from Fig. 1; conceptual translation presented here differs from translation in
publication.
BAA06629.1 D31843 Oryza sativa
plasma membrane H+-ATPase. OSA2.
AAA34094.1 M80489 Nicotiana plumbaginifolia
plasma membrane H+ ATPase. pma1.
BAA08134.1 D45189 Zostera marina
plasma membrane H+-ATPase. zha1.
CAB85494.1 AJ132891 Medicago truncatula
proton pump. H+-ATPase. hal.
CAB85495.1 AJ132892 Medicago truncatula
proton pump. H+-ATPase. ha1.
AAB84202.2 AF029256 Kosteletzkya virginica
plasma membrane proton ATPase. ATP1.
CAA47275.1 X66737 Nicotiana plumbaginifolia
plasma membrane H+-ATPase. pma4.
CAA54045.1 X76535 Solanum tuberosum
H(+)-transporting ATPase. PHA2.
AAD46186.1 AF156679 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma6.
AAB17186.1 U72148 Lycopersicon esculentum
plasma membrane H+-ATPase. LHA4. plasma membrane proton pumping ATPase.
CAB69823.1 AJ271438 Prunus persica
plasma membrane H+ ATPase. PPA2.
AAB41898.1 U84891 Mesembryanthemum crystallinum
plasma membrane proton pump. H+-transporting ATPase. PMA.
CAC29436.1 AJ310524 Vicia faba
P-type H+-ATPase. ha5. predominantly expressed in guard cells and flowers.
BAA37150.1 AB022442 Vicia faba
p-type H+-ATPase. VHA2.
CAA59800.1 X85805 Zea mays
H(+)-transporting ATPase. MHA-2.
CAA59799.1 X85804 Phaseolus vulgaris
H(+)-transporting ATPase. BHA-1.
CAC29435.1 AJ310523 Vicia faba
P-type H+-ATPase. vha4. predominantly expressed in flowers.
AAD46188.1 AF156691 Nicotiana plumbaginifolia
plasma membrane proton ATPase. pma9.
AAA34099.1 M80491 Nicotiana plumbaginifolia
plasma membrane H+ ATPase. pma3.
plasma memorane HT ATT ase, plias.

AAA34052.1 M27888 Nicotiana plumbaginifolia
H+-translocating ATPase.
CAA54046.1 X76536 Solanum tuberosum
H(+)-transporting ATPase. PHA1.
AAA34098.1 M80490 Nicotiana plumbaginifolia
plasma membrane H+ ATPase. pma3.
AAD55399.1 AF179442 Lycopersicon esculentum
plasma membrane H+-ATPase isoform LHA2. LHA2.
AAF98344.1 AF275745 Lycopersicon esculentum
plasma membrane H+-ATPase. LHA2. P-type ion pump.
AAG01028.1 AF289025 Cucumis sativus
plasma membrane H+-ATPase.
AAK31799.1 AY029190 Lilium longiflorum
plasma membrane H+ ATPase. LILHA1.
AAA81348.1 U38965 Vicia faba
p-type H+-ATPase. VHA2.
AAK32119.1 AF308817 Hordeum vulgare
plasmalemma H+-ATPase 2.
AAK32118.1 AF308816 Hordeum vulgare
plasmalemma H+-ATPase 1.
AAA20600.1 U08984 Zea mays
plasma-membrane H+ ATPase. Zmpma1.
SEQ ID NO: 884
AAD21872.1 AF078082 Phaseolus vulgaris
receptor-like protein kinase homolog RK20-1.
AAB93834.1 U82481 Zea mays
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein
kinase.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
AAC23542.1 U20948 Ipomoea trifida
receptor protein kinase. IRK1.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
CAA73133.1 Y12530 Brassica oleracea
serine /threonine kinase. ARLK.
BAA23676.1 AB000970 Brassica rapa
receptor kinase 1. BcRK1.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.

CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular
kinase domain: from 1413.
CAA74661.1 Y14285 Brassica oleracea
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular
kinase domain: 1412-2554.
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
BAA92836.1 AB032473 Brassica oleracea
S18 S-locus receptor kinase. SRK18.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
AAA33000.1 M76647 Brassica oleracea
receptor protein kinase. SKR6.
AAA62232.1 U00443 Brassica napus
S-receptor kinase. protein contains an immunoglobulin-like domain.
AAA33008.1 M97667 Brassica napus
serine/threonine kinase receptor.
CAB89179.1 AJ245479 Brassica napus subsp. napus
ser /thr kinase. S-locus receptor kinase. srk.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
AAD52097.1 AF088885 Nicotiana tabacum
receptor-like kinase CHRK1. Chrk1.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
AAK02023.1 AC074283 Oryza sativa
Putative protein kinase-like. OSJNBa0087H07.5.
CAA79324.1 Z18884 Brassica oleracea
S-receptor kinase related protein.
BAB16871.1 AP002537 Oryza sativa
putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs
C22608(R3192),D25110(R3192).

BAB39873.1 AP002882 Oryza sativa putative protein kinase, P0439B06.8, contains ESTs AU056701(S20808),AU056702(S20808). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). CAB51836.1 AJ243961 Oryza sativa Putitive Ser/Thr protein kinase. 11332.7. AAA33915.1 L27821 Oryza sativa receptor type serine/threonine kinase. protein kinase. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821). AAF66615.1 AF142596 Nicotiana tabacum LRR receptor-like protein kinase. BAB17139.1 AP002867 Oryza sativa putative receptor kinase. P0463F06.31. **SEQ ID NO: 885** CAA80358.1 Z22645 Solanum tuberosum cleavage of sucrose to glucose and fructose. beta-fructofuranosidase. CAA79676.1 Z21486 Solanum tuberosum cleavage of sucrose to glucose and fructose. beta-fructofuranosidase. CAA57428.1 X81834 Nicotiana tabacum beta-fructofuranosidase. Ntbfruc1. beta-fructosidase. CAA49162.1 X69321 Daucus carota beta-fructofuranosidase. Inval*DC1. Chenopodium rubrum CAA57389.1 X81792 beta-fructofuranosidase, CIN1. AAC17166.1 AF063246 Pisum sativum hydrolyzes sucrose to glucose and fructose. cell wall invertase. bfruct1. isoform PcI-2; the PcI-1 isoform is in the file with GenBank Accession Number X85327; betafructofuranosidase. CAA59677.1 X85327 Pisum sativum hydrplyze sucrose into fructose and glucose. invertase. bfruct1. beta-fructofuranosidase. AAD02263.1 AF043346 Zea mays sucrose hydrolysis. cell wall invertase. incw3. Incw3; beta-fructofuranosidase. CAA84526.1 Z35162 Vicia faba hydrolyze sucrose. beta-fructofuranosidase; cell wall invertase I; fructosidase. VFCWINV1.

AAC96065.1 AF030420 Triticum aestivum
hydrolyzes sucrose. cell wall invertase. IVR1. hydrolase; beta-fructofuranosidase; fructosidase.
CAA53099.1 X75353 Daucus carota
beta-fructofuranosidase.
AAB68679.1 U92438 Phaseolus vulgaris
soluble acid invertase. PVSAI; potential vacuolar targeted enzyme; beta-fructofuranosidase.
CAA89992.1 Z49831 Vicia faba
hydrolyze sucrose. vacuolar invertase; beta-fructofuranosidase. VFVCINV.
CAA53097.1 X75351 Daucus carota
beta-fructofuranosidase.
CAA77267.1 Y18707 Daucus carota
beta-fructofuranosidase, isoform I. Inv*Dc4. soluble acid invertase.
CAA53098.1 X75352 Daucus carota
beta-fructofuranosidase.
CAA77266.1 Y18706 Daucus carota
beta-fructofuranosidase, isoform II. Inv*Dc5. soluble acid invertase.
AAC96066.1 AF030421 Triticum aestivum
hydrolyzes sucrose. cell wall invertase. IVR3. hydrolase; beta-fructofuranosidase;
fructosidase.
AAG36943.1 AF274299 Brassica oleracea
cleaves sucrose into glucose and fructose at acid pH optima. acid invertase AI7-3. sucrose hydrolysing enzyme; beta-fructofuranosidase.
SEQ ID NO: 887
AAD10836.1 U52079 Solanum tuberosum
P-glycoprotein. pmdr1. binds ATP; ATPase; transporter; transmembrane protein.
BAA96612.1 AP002482 Oryza sativa
Similar to Arabidopsis thaliana chromosome 2, BAC F14M4; putative ABC transporter (AC004411).
AAG49002.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4a; GC splice donor confirmed by cDNA and comparative sequencing.
AAG45492.1 AY013245 Oryza sativa
3615.4. putative ABC transporter; GC splice donor confirmed by cDNA alignment and
comparative sequence.
BAA83352.1 AP000391 Oryza sativa
ESTs AU067992(C11433), AU077424(C11433) correspond to a region of the predicted gene.;
Similar to ABC transporter-7 (U43892).
AAG49003.1 AY013246 Hordeum vulgare
putative ABC transporter. 635P2.4b; GC splice donor confirmed by cDNA alignment and
comparative sequence.
BAB17113.1 AP002866 Oryza sativa
putative white protein; ATP-binding cassette transporter. P0410E01.34.

BAA90508.1 AP001111 Oryza sativa			
similar to ABC transporter of Arabidopsis thaliana (AC004697).			
BAA90507.1 AP001111 Oryza sativa			
similar to ABC transporter of Arabidopsis thaliana (AC004697).			
BAB16495.1 AP002861 Oryza sativa			
putative ABC transporter ATP-binding protein. P0665D10.21.			
BAB21276.1 AP002844 Oryza sativa			
putative ABC transporter protein. P0410E03.7. contains EST D22472(C1173).			
BAB21275.1 AP002844 Oryza sativa			
putative ABC transporter protein. P0410E03.6.			
BAB21273.1 AP002844 Oryza sativa			
putative ABC transporter protein. P0410E03.4.			
BAB40032.1 AP003046 Oryza sativa			
putative ABC transporter. P0445D12.3.			
SEQ ID NO: 888			
AAD21872.1 AF078082 Phaseolus vulgaris			
receptor-like protein kinase homolog RK20-1.			
CAA73134.1 Y12531 Brassica oleracea			
serine/threonine kinase. BRLK.			
AAB93834.1 U82481 Zea mays			
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein			
kinase.			
AAC23542.1 U20948 Ipomoea trifida			
receptor protein kinase. IRK1.			
AAA33000.1 M76647 Brassica oleracea			
receptor protein kinase. SKR6.			
CAB89179.1 AJ245479 Brassica napus subsp. napus			
ser /thr kinase. S-locus receptor kinase. srk.			
AAA33008.1 M97667 Brassica napus			
serine/threonine kinase receptor.			
CAA74661.1 Y14285 Brassica oleracea			
SFR1. extracellular S domain: 8-1342; transmembrane domain: 1343-1411; intracellular			
kinase domain: 1412-2554.			
CAA67145.1 X98520 Brassica oleracea			
receptor-like kinase. SFR2.			
AAA62232.1 U00443 Brassica napus			
S-receptor kinase. protein contains an immunoglobulin-like domain.			
CAA73133.1 Y12530 Brassica oleracea			
serine /threonine kinase. ARLK.			
BAA23676.1 AB000970 Brassica rapa			
receptor kinase 1. BcRK1.			
BAA92836.1 AB032473 Brassica oleracea			
S18 S-locus receptor kinase. SRK18.			

CAA74662.1 Y14286 Brassica oleracea
SFR3. extracellular S domain: 123-1346; transmembrane domain: 1347-1412; intracellular kinase domain: from 1413.
CAA79355.1 Z18921 Brassica oleracea
S-receptor kinase-like protein.
CAB41879.1 Y18260 Brassica oleracea
SRK15 protein. SRK15. receptor-like kinase.
BAA06285.1 D30049 Brassica rapa
S-receptor kinase SRK9.
BAA21132.1 D88193 Brassica rapa
S-receptor kinase. SRK9 (B.c).
CAB41878.1 Y18259 Brassica oleracea
SRK5 protein. SRK5. receptor-like kinase.
BAA92837.1 AB032474 Brassica oleracea
S60 S-locus receptor kinase. SRK60.
BAA07577.2 D38564 Brassica rapa
receptor protein kinase SRK12.
BAB21001.1 AB054061 Brassica rapa
S locus receptor kinase. SRK22.
BAA07576.1 D38563 Brassica rapa
receptor protein kinase SRK8.
AAD52097.1 AF088885 Nicotiana tabacum
receptor-like kinase CHRK1. Chrk1.
AAK02023.1 AC074283 Oryza sativa
Putative protein kinase-like. OSJNBa0087H07.5.
BAB18292.1 AP002860 Oryza sativa
putative receptor-like protein kinase. P0409B08.19.
BAA87853.1 AP000816 Oryza sativa
EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative
NAK-like Ser/Thr protein kinase. (AF001308).
AAK21965.1 AY028699 Brassica napus
receptor protein kinase PERK1.
BAB21240.1 AP002953 Oryza sativa
Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461).
BAB39873.1 AP002882 Oryza sativa
putative protein kinase. P0439B06.8. contains ESTs
AU056701(S20808),AU056702(S20808).
BAB17331.1 AP002747 Oryza sativa
putative receptor kinase. P0698G03.12.
BAB17139.1 AP002867 Oryza sativa
putative receptor kinase. P0463F06.31.
AAK00425.1 AC069324 Oryza sativa
Putative protein kinase. OSJNBa0071K19.11.

BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). BAA92954.1 AP001551 Oryza sativa Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821). CAB51836.1 AJ243961 Oryza sativa Putitive Ser/Thr protein kinase. 11332.7. AAF78016.1 AF238472 Oryza sativa receptor-like kinase. RLG15. protein kinase. BAB39451.1 AP003338 Oryza sativa putative receptor kinase. OJ1212_B09.24. **SEO ID NO: 890** AAB47181.1 \$82324 Zea mays /gene="calcium/calmodulin-dependent protein kinase. This sequence comes from Fig. 1. BAA22410.1 D38452 Zea mays calcium-dependent protein kinase-related kinase. BAA12692.1 D84508 Zea mays CDPK-related protein kinase. Does not require calcium for its activity. AAG01179.1 AF289237 Zea mays calcium/calmodulin dependent protein kinase MCK2. MCK2. CAA58750.1 X83869 Daucus carota CDPK-related protein kinase. CRK (or PK421). BAA12691.1 D84507 Zea mays CDPK-related protein kinase. Does not require calcium for its activity (by similarity). Tradescantia virginiana AAC24961.1 AF009337 CDPK-related protein kinase. CRK1. AAF23901.2 AF194414 Oryza sativa calcium-dependent protein kinase. CDPK5. OsCDPK5. AAF23900.1 AF194413 Oryza sativa calcium-dependent protein kinase. CDPK1. OsCDPK1. AAC78558.1 AF030879 Solanum tuberosum protein kinase CPK1. AAD17800.1 AF090835 Mesembryanthemum crystallinum Ca2+-dependent protein kinase. CPK1. serine/threonine protein kinase. Cucurbita pepo AAB49984.1 U90262 calcium-dependent calmodulin-independent protein kinase CDPK. cpCPK1. serine/threonine protein kinase that is activated by direct binding of calcium. CAA07481.1 AJ007366 Zea mays calcium-dependent protein kinase. BAB21081.1 AP002819 Oryza sativa putative calcium-dependent protein kinase. P0501G01.10. BAA12715.1 D85039 Zea mays calcium-dependent protein kinase.

AAC25423.1 AF072908 Nicotiana tabacum
calcium-dependent protein kinase. CDPK1.
CAA39936.1 X56599 Daucus carota
calcium- dependent protein kinase. DcPK431.
CAA57157.1 X81394 Oryza sativa
calcium-dependent protein kinase. OSCPK2.
AAF21062.1 AF216527 Dunaliella tertiolecta
calcium-dependent protein kinase. CPK1; CDPK.
BAA81751.1 AB017517 Marchantia polymorpha
calcium-dependent protein kinase. CDPK1. CDPK-B; alternative splicing.
BAA81749.1 AB017515 Marchantia polymorpha
calcium-dependent protein kinase. CDPK1. CDPK-B; alternative splicing.
AAB88537.1 AF035944 Fragaria x ananassa
calcium-dependent protein kinase. MAX17.
BAA81750.1 AB017516 Marchantia polymorpha
calcium-dependent protein kinase. CDPK1. CDPK-A; alternative splicing.
BAA81748.1 AB017515 Marchantia polymorpha
calcium-dependent protein kinase. CDPK1. CDPK-A; alternative splicing.
AAA69507.1 U28376 Zea mays
calcium-dependent protein kinase. MZECDPK2.
AAA61682.1 L27484 Zea mays
calcium-dependent protein kinase. CDPK.
AAB80693.1 U69174 Glycine max
calmodulin-like domain protein kinase isoenzyme gamma. CDPK gamma.
BAA13232.1 D87042 Zea mays
Calcium-dependent protein kinase.
BAA13440.1 D87707 Ipomoea batatas
calcium dependent protein kinase. CDPK.
CAA89202.1 Z49233 Chlamydomonas eugametos
calcium-stimulated protein kinase.
AAB70706.1 U82087 Tortula ruralis
calmodulin-like domain protein kinase. TrCPK1.
AAD28192.2 AF115406 Solanum tuberosum
calcium-dependent protein kinase. CDPK; catalytic domain.
AAC49405.1 U08140 Vigna radiata
calcium dependent protein kinase. CDPK.
BAA12338.1 D84408 Zea mays
calcium dependent protein kinase. ZmCDPK1.
CAA65500.1 X96723 Medicago sativa
CAA65500.1 X96723 Medicago sativa protein kinase. CDPK.

BAA85396.1 AP000615 Oryza sativa ESTs C22369(C12239),C22370(C12239), AU057852(S21844),AU057853(S21844) correspond to a region of the predicted gene.; similar to calcium dependent protein kinase. (AF048691). AAA33443.1 L15390 Zea mays calcium-dependent protein kinase. CDPK. AAB80692.1 U69173 Glycine max calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk. BAA90814.1 AP001168 Oryza sativa
correspond to a region of the predicted gene.; similar to calcium dependent protein kinase. (AF048691). AAA33443.1 L15390 Zea mays calcium-dependent protein kinase. CDPK. AAB80692.1 U69173 Glycine max calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
(AF048691). AAA33443.1 L15390 Zea mays calcium-dependent protein kinase. CDPK. AAB80692.1 U69173 Glycine max calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium-dependent protein kinase. CDPK. AAB80692.1 U69173 Glycine max calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
AAB80692.1 U69173 Glycine max calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calmodulin-like domain protein kinase isoenzyme beta. CDPK beta. CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
CAA57156.1 X81393 Oryza sativa calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium-dependent protein kinase. OSCPKII. AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
AAC05270.1 AF048691 Oryza sativa calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium dependent protein kinase. CDPK12. AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
AAK26164.1 AY027885 Cucumis sativus calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium-dependent calmodulin-independent protein kinase 5. CDPK5. CsCDPK5. AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
AAG46110.1 AC073166 Oryza sativa calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium-dependent protein kinase. OSJNBb0064P21.2. BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
BAA02698.1 D13436 Oryza sativa calcium-dependent protein kinase. spk.
calcium-dependent protein kinase. spk.
BAA90814 1 AP001168 Oryza sativa
Didison in the control
ESTs AU030197(E50746), AU030196(E50746) correspond to a region of the predicted gene.;
Similar to calcium-dependent calmodulin-independent protein kinase CDPK (U90262).
AAF19401.1 AF203479 Glycine max
phosphoenolpyruvate carboxylase kinase. protein kinase; member of Ca2+/CaM kinase family; lacks the autoinhibitory region and EF hands.
CAB46228.1 Y18055 Arachis hypogaea
calcium dependent protein kinase. CDPK.
AAF19403.1 AF203481 Lycopersicon esculentum
phosphoenolpyruvate carboxylase kinase, protein kinase; member of Ca2+/CaM kinase
family; lacks the autoinhibitory region and EF hands.
AAF19402.1 AF203480 Lycopersicon esculentum
phosphoenolpyruvate carboxylase kinase. protein kinase; member of Ca2+/CaM kinase
family; lacks the autoinhibitory region and EF hands.
SEQ ID NO: 892
AAF20931.1 AF206721 Brassica juncea
ascorbate oxidase.
BAA07734.1 D43624 Nicotiana tabacum
ascorbate oxidase precursor.
AAA33119.1 J04494 Cucumis sativus
ascorbate oxidase precursor (EC 1.10.3.3).
CAA75577.1 Y15295 Medicago truncatula
L-ascorbate oxidase. MtN23.
AAF35911.2 AF233594 Cucumis melo
ascorbate oxidase AO4. multicopper oxidase.

CA 420200 1 VEEZZO C 1'
CAA39300.1 X55779 Cucurbita sp.
ascorbate oxidase.
BAA09528.1 D55677 Cucurbita maxima
ascorbate oxidase. AAO.
AAF35910.1 AF233593 Cucumis melo
ascorbate oxidase AO1. multicopper oxidase.
CAA71275.1 Y10226 Cucumis melo
L-ascorbate oxidase. ao3.
AAF20932.1 AF206722 Brassica juncea
ascorbate oxidase.
AAF20933.1 AF206723 Brassica juncea
ascorbate oxidase.
CAA71273.1 Y10224 Cucumis melo
L-ascorbate oxidase. ao1.
CAA71274.1 Y10225 Cucumis melo
L-ascorbate oxidase. ao1.
BAA20520.1 AB004799 Oryza sativa
ascorbate oxidase.
AAF33751.1 AF202460 Capsicum annuum
ascorbic acid oxidase.
AAB17193.1 U73105 Liriodendron tulipifera
monolignol polymerization; lignin biosynthesis. laccase. LAC2-3. diphenol oxidase; blue
copper oxidase.
AAB17191.1 U73103 Liriodendron tulipifera
monolignol polymerization; lignin biosynthesis. laccase. LAC2-1. diphenol oxidase; blue
copper oxidase.
AAC49536.1 U43542 Nicotiana tabacum
diphenol oxidase. laccase.
AAB17194.1 U73106 Liriodendron tulipifera
monolignol polymerization; lignin biosynthesis. laccase. LAC2-4. diphenol oxidase; blue
copper oxidase.
AAB17192.1 U73104 Liriodendron tulipifera
monolignol polymerization; lignin biosynthesis. laccase. LAC2-2. diphenol oxidase; blue
copper oxidase.
AAC04576.1 AF047697 Oryza sativa
p-diphenol oxidase. putative high-pI laccase.
AAB09228.1 U12757 Acer pseudoplatanus
monolignol polymerization; lignin biosynthesis. laccase. diphenol oxidase.
CAA45554.1 X64257 Brassica napus
Bp10. protein homologous to ascorbate oxidase.
AAC49538.1 U45243 Nicotiana tabacum
diphenol oxidase. laccase.

 AAC49537.1 U43543 Nicotiana tabacum
diphenol oxidase. laccase.
AAD02557.1 AF049931 Petunia x hybrida
PGPS/NH15. PGPS/NH15. ascorbate oxidase homolog.
SEQ ID NO: 894
CAB43505.1 AJ239051 Cicer arietinum
cytochrome P450. cyp81E2.
BAA74465.1 AB022732 Glycyrrhiza echinata
cytochrome P450. CYP Ge-31.
BAA93634.1 AB025016 Lotus japonicus
cytochrome P450.
BAA22422.1 AB001379 Glycyrrhiza echinata
cytochrome P450. CYP81E1.
CAA04117.1 AJ000478 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B11. chimeric sequence (from 5'-
race).
CAB41490.1 AJ238439 Cicer arietinum
cytochrome P450 monooxygenase. cyp81E3v2.
CAA04116.1 AJ000477 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B1c.
CAA10067.1 AJ012581 Cicer arietinum
cytochrome P450. cyp81E3.
AAK38079.1 AF321855 Lolium rigidum
putative cytochrome P450.
AAK38080.1 AF321856 Lolium rigidum
putative cytochrome P450.
AAK38081.1 AF321857 Lolium rigidum
putative cytochrome P450.
AAD56282.1 AF155332 Petunia x hybrida
flavonoid 3'-hydroxylase. Htl. cytochrome P450; CYP75B2.
AAC34853.1 AF082028 Hemerocallis hybrid cultivar
putative cyt P450-containing fatty acid hydroxylase. senescence-associated protein 3. SA3.
mRNA accumulates in senescing petals.
AAG09208.1 AF175278 Pisum sativum
wound-inducible P450 hydroxylase. CYP82A1.
BAA12159.1 D83968 Glycine max
Cytochrome P-450 (CYP93A1).
CAA71515.1 Y10491 Glycine max
putative cytochrome P450.
CAA71876.1 Y10982 Glycine max
putative cytochrome P450.
CAA65580.1 X96784 Nicotiana tabacum
cytochrome P450. hsr515.

AAC49188.2 U29333 Pisum sativum
cytochrome P450 monooxygenase. CYP82. new cytochrome P450 family.
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
CAA71516.1 Y10492 Glycine max
putative cytochrome P450.
CAA64635.1 X95342 Nicotiana tabacum
cytochrome P450. hsr515. hypersensitivity-related gene.
AAC39454.1 AF014802 Eschscholzia californica
(S)-N-methylcoclaurine 3'-hydroxylase. CYP82B1. cytochrome P-450-dependent
monooxygenase; methyl jasmonate-inducible cytochrome P-450-dependent, homologous to
wound-inducible CYP82A1 of Pisum sativum GenBank Accession Number U29333.
AAB94590.1 AF022461 Glycine max
CYP82C1p. CYP82C1. cytochrome P450 monooxygenase.
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
CAA71877.1 Y10983 Glycine max
putative cytochrome P450.
BAA84072.1 AB028152 Torenia hybrida
flavone synthase II. cytochrome P450. TFNS5.
BAA13076.1 D86351 Glycine max
cytochrome P-450 (CYP93A2).
AAG34695.1 AF313492 Matthiola incana
putative cytochrome P450.
BAA84071.1 AB028151 Antirrhinum majus
flavone synthase II. cytochrome P450. AFNS2.
AAC32274.1 AF081575 Petunia x hybrida
flavonoid 3',5'-hydroxylase. Hf1. P450 enzyme.
BAA35080.1 AB015762 Nicotiana tabacum
putative cytochrome P450. CYP82E1.
CAA50155.1 X70824 Solanum melongena
flavonoid hydroxylase (P450). CYP75.
CAA70575.1 Y09423 Nepeta racemosa
cytochrome P450. CYP71A5.
BAA92894.1 AB006790 Petunia x hybrida
cytochrome P450. IMT-2.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.
AAB94587.1 AF022458 Glycine max
CYP98A2p. CYP98A2. cytochrome P450 monooxygenase.
SEQ ID NO: 895

BAA78764.1 AB023482 Oryza sativa ESTs C98382(C2985),D22444(C11129) correspond to a region of the predicted gene.; Similar to Arabidopsis thaliana APK1 gene for protein tyrosine-serine-threonine kinase. (D12522). AAF43496.1 AF131222 Lophopyrum elongatum protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and ABA treatment. AAK11674.1 AF339747 Lophopyrum elongatum protein kinase. ESI47. AAG16628.1 AY007545 Brassica napus protein serine/threonine kinase BNK1. BAA94510.1 AB041504 Populus nigra protein kinase 2. PnPK2. BAA94509.1 AB041503 Populus nigra protein kinase 1. PnPK1. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). BAB07999.1 AP002525 Oryza sativa putative protein kinase, P0462H08.22, contains EST C22619(S11214). BAB03429.1 AP002817 Oryza sativa EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587). BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24, contains ESTs C22608(R3192),D25110(R3192). BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808),AU056702(S20808). BAB39409.1 AP002901 Oryza sativa putative protein kinase. P0456F08.9. contains EST C23560(R0290). AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. AAG59657.1 AC084319 Oryza sativa putative protein kinase. OSJNBa0004B24.20. AAG03090.1 AC073405 Oryza sativa Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). CAB51834.1 00069 Oryza sativa 11332.5. contains eukaryotic protein kinase domain PF.

AAC61805.1 U28007 Lycopersicon esculentum serine/threonine protein kinase. Pto kinase interactor 1. Pti1. Pti1 kinase. AAF91336.1 AF249317 Glycine max Ptil kinase-like protein. Ptila. protein kinase. AAF91337.1 AF249318 Glycine max Ptil kinase-like protein. Ptilb. protein kinase. BAB21241.1 AP002953 Oryza sativa Putative Pto kinase interactor 1, P0426D06.21, contains ESTs AU108280(E0721),D48017(S13927). AAB09771.1 U67422 Zea mays CRINKLY4 precursor, cr4, receptor kinase homolog. CAA97692.1 Z73295 Catharanthus roseus receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser. Mechanism: autophosphorylation in cis. BAA92221.1 AP001278 Oryza sativa Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative protein kinase. (AC004218). BAA87852.1 AP000816 Oryza sativa Similar to putative Ser/Thr protein kinase. (AC004218). AAB61708.1 U93048 Daucus carota somatic embryogenesis receptor-like kinase. SERK. AAG25966.1 AF302082 Nicotiana tabacum cytokinin-regulated kinase 1. CRK1, protein kinase; transcript abundance decreases rapidly after cytokinin treatment. BAA90808.1 AP001168 Oryza sativa Similar to putative receptor-like protein kinase (AL035679). AAF76313.1 AF220603 Lycopersicon esculentum Pto kinase. LescPth5. AAB47421.1 U59316 Lycopersicon esculentum serine/threonine protein kinase Pto. pto. allele of Pto bacterial speck disease resistance gene in tomato. AAC23542.1 U20948 Ipomoea trifida receptor protein kinase. IRK1. BAB19337.1 AP003044 Oryza sativa putative protein kinase. P0038C05.10. contains ESTs AU056335(S20481),AU056336(S20481). AAC27894.1 AF023164 Zea mays leucine-rich repeat transmembrane protein kinase 1, ltk1. AAF66615.1 AF142596 Nicotiana tabacum LRR receptor-like protein kinase. CAB51480.1 Y14600 Sorghum bicolor putative protein serine /threonine kinase. RLK1. accumulates in mesophyll cells.

BAA92954.1 AP001551 Oryza sativa
Similar to Oryza sativa protein kinase (OSPK10) mRNA. (L27821).
BAA92953.1 AP001551 Oryza sativa
Similar to Arabidopsis thaliana chromosome 4 BAC clone F10M6; S-receptor kinase -like
protein. (AL021811).
AAK11566.1 AF318490 Lycopersicon hirsutum
Pto-like protein kinase E. LhirPtoE. confers resistance to bacterial speck disease.
AAK11567.1 AF318491 Lycopersicon hirsutum
Pto-like protein kinase F. LhirPtoF.
BAA82556.1 AB030083 Populus nigra
lectin-like protein kinase. PnLPK.
CAA67145.1 X98520 Brassica oleracea
receptor-like kinase. SFR2.
SEQ ID NO: 899
AAF61647.1 AF190634 Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA89009.1 AB027455 Petunia x hybrida
anthocyanin 5-O-glucosyltransferase. PH1.
AAA59054.1 L34847 Zea mays
conjugation of the growth hormone indole-3-acetic acid (IAA). IAA-glu synthetase. iaglu.
BAA93039.1 AB033758 Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
BAA36423.1 AB013598 Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
BAA36421.1 AB013596 Perilla frutescens
UDP-glucose:anthocysnin 5-O-glucosyltransferase. PF3R4.
AAF98390.1 AF287143 Brassica napus
catalyzes the transfer of glucose from UDP-glucose to sinapate and some other
hydroxycinnamates (4-coumarate, caffeate, ferulate). UDP-glucose:sinapate
glucosyltransferase. SGT1. SGT.
BAA36422.1 AB013597 Perilla frutescens
UDP-glucose:anthocyanin 5-O-glucosyltransferase homologue. PF3R6.
BAB07962.1 AP002524 Oryza sativa
putative anthocyanin 5-O-glucosyltransferase. P0406H10.16. contains ESTs
AU067881(C10481),AU067882(C10481).
AAK16175.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
AAK16181.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.16.
AAK16178.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.5.
AAG25643.1 AF303396 Phaseolus vulgaris
UDP-glucosyltransferase HRA25. putative; defense associated.

AAK16172.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
BAA83484.1 AB031274 Scutellaria baicalensis
UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt.
AAB36652.1 U32643 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS10a.
AAK28304.1 AF346432 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase.
AAD21086.1 AF127218 Forsythia x intermedia
adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-
glucosyltransferase. UFGT.
AAB36653.1 U32644 Nicotiana tabacum
immediate-early salicylate-induced glucosyltransferase. IS5a.
BAA12737.1 D85186 Gentiana triflora
UDP-glucose:flavonoid-3-glucosyltransferase.
AAK28303.1 AF346431 Nicotiana tabacum
phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase.
AAF17077.1 AF199453 Sorghum bicolor
UDP-glucose glucosyltransferase. UDP-glucose:p-hydroxymandelonitrile-o-
glucosyltransferase.
AAK16180.1 AC079887 Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.21.
CAA59450.1 X85138 Lycopersicon esculentum
twil. homologous to glucosyltransferases.
BAB41017.1 AB047090 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT1. The gene was derived from one
of the parents V. labruscana cv. Ishiharawase.
BAB41026.1 AB047099 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT2.
BAB41024.1 AB047097 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT2.
BAB41022.1 AB047095 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT2.
BAB41020.1 AB047093 Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT2.
BAA89008.1 AB027454 Petunia x hybrida
anthocyanidin 3-O-glucosyltransferase. PGT8.
BAB41018.1 AB047091 Vitis labrusca x Vitis vinifera
UDP-glucose:flavonoid 3-O-glucosyltransferase. KyUFGT2. The gene originated in one of the
parents V. vinifera cv. Centennial.
CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.

AAB81683.1 AF000372 Vitis vinifera			
UDP glucose:flavonoid 3-o-glucosyltransferase.			
BAB41019.1 AB047092 Vitis vinifera			
UDP-glucose:flavonoid 3-O-glucosyltransferase. ItUFGT1.			
BAB41025.1 AB047098 Vitis vinifera			
UDP-glucose:flavonoid 3-O-glucosyltransferase. FlUFGT1.			
BAB41023.1 AB047096 Vitis vinifera			
UDP-glucose:flavonoid 3-O-glucosyltransferase. AlUFGT1.			
BAB41021.1 AB047094 Vitis vinifera			
UDP-glucose:flavonoid 3-O-glucosyltransferase. RuUFGT1.			
AAB81682.1 AF000371 Vitis vinifera			
UDP glucose:flavonoid 3-o-glucosyltransferase.			
BAA19659.1 AB002818 Perilla frutescens			
flavonoid 3-O-glucosyltransferase. UDP glucose.			
BAA90787.1 AB038248 Ipomoea batatas			
UDP glucose: flavonoid 3-O-glucosyltransferase. uf3gt.			
AAD04166.1 AF101972 Phaseolus lunatus			
catalyzes formation of O-glucosylzeatin from zeatin and UDPG; catalyzes formation of O-			
xylosylzeatin from zeatin and UDPX. zeatin O-glucosyltransferase. ZOG1. cytokinin O-			
glucosyltransferase.			
AAB86473.1 AF028237 Ipomoea purpurea			
UDP glucose: flavonoid 3-O-glucosyltransferase. UF3GT-FL1.			
SEQ ID NO: 900			
AAA33975.1 M11395 Glycine max			
small heat shock protein.			
CAA41547.1 X58711 Medicago sativa			
heat shock protein.			
AAB03893.1 M11318 Glycine max			
17.5 kd heat shock protein Gmhsp17.6L.			
AAA33672.1 M33899 Pisum sativum			
18.1 kDa heat shock protein (hsp18.1).			
CAA25578.1 X01104 Glycine max			
heat shock protein 6871 (aa 1-153).			
CAB55634.2 AJ237596 Helianthus annuus			
17.9 kDa heat-shock protein. hsp17.9.			
BAA33062.1 AB017273 Cuscuta japonica			
low-molecular-weight heat shock protein. CJHSP17.			
AAA33974.1 M11317 Glycine max			
17.6 kd heat shock protein Gmhsp17.6L.			
AAD30454.1 AF123257 Lycopersicon esculentum			
17.6 kD class I small heat shock protein. HSP17.6.			
AAD30452.1 AF123255 Lycopersicon esculentum			
17.7 kD class I small heat shock protein. HSP17.7.			

CAA39603.1 X56138 Lycopersicon esculentum
small heat shock protein (class I).
AAD30453.1 AF123256 Lycopersicon esculentum
17.8 kD class I small heat shock protein. HSP17.8.
CAA37847.1 X53851 Daucus carota
heat shock protein.
AAA33671.1 M33900 Pisum sativum
17.9 kDa heat shock protein (hsp17.9).
AAF34133.1 AF161179 Malus x domestica
low molecular weight heat shock protein. Hsp1.
CAA41546.1 X58710 Medicago sativa
heat shock protein.
AAB63310.1 U46544 Helianthus annuus
18.6 kDa heat-shock protein. Class I low-molecular-weight heat-shock protein.
AAB63311.1 U46545 Helianthus annuus
17.7 kDa heat shock protein. Class I low-molecular-weight heat-shock protein.
CAB08441.1 Z95153 Helianthus annuus
17.6 kD class I small heat-shock protein HSP17.6. Ha hsp17.6.
CAA42222.1 X59701 Helianthus annuus
17.6 kDa heat shock protein.
AAC39360.1 U63631 Fragaria x ananassa
LMW heat shock protein.
AAA33910.1 M80939 Oryza sativa
16.9 kDa heat shock protein.
CAA37848.1 X53852 Daucus carota
heat shock protein.
AAA33909.1 M80938 Oryza sativa
16.9 kDa heat shock protein.
CAA43210.1 X60820 Oryza sativa
16.9 KD low molecular weight heat shock protein.
CAA37864.1 X53870 Chenopodium rubrum
heat-shock protein.
AAD49336.1 AF166277 Nicotiana tabacum
low molecular weight heat-shock protein. LHS-1. TLHS-1.
AAA61632.1 U08601 Papaver somniferum
low molecular weight heat-shock protein.
AAB72109.1 AF022217 Brassica rapa
low molecular weight heat-shock protein. BcHSP17.6. 17.6 kDa; cytosolic class I.
CAA63902.1 X94192 Pennisetum glaucum
heat shock protein 16.9. hsp16.9.
AAB39856.1 U81385 Oryza sativa
heat shock protein. Oshsp16.9C. class I, low molecular mass.

CAA46641.1 X65725 Zea mays
heat shock protein 17.2. Zmhsp 17.2. Class I low molecular weight heat shock protein.
CAA08908.1 AJ009880 Castanea sativa
molecular chaperone. cytosolic class I small heat-shock protein HSP17.5. hsp17.5.
CAB93512.1 AJ243565 Brassica oleracea
putative class I small heat shock protein. HSP17.7-a protein. hsp17.7-a.
CAA63903.1 X94193 Pennisetum glaucum
heat shock protein 17.9. hsp17.9.
CAB36910.1 AJ000691 Quercus suber
stress protein chaperone. heat shock protein 17.4. hsp17.
CAA63901.1 X94191 Pennisetum glaucum
heat shock protein 17.0. hsp17.0.
AAC78392.1 U83669 Oryza sativa
low molecular mass heat shock protein Oshsp17.3. OSHSP17.3. class I LMMHSP.
BAA02160.1 D12635 Oryza sativa
'low molecular weight heat shock protein'.
AAC78393.1 U83670 Oryza sativa
low molecular mass heat shock protein Oshsp18.0. OSHSP18.0. class I LMMHSP.
CAA31785.1 X13431 Triticum aestivum
put. heat shock protein (AA 1 -151).
CAA63570.1 X92983 Pseudotsuga menziesii
low molecular weight heat-shock protein.
AAC78394.1 U83671 Oryza sativa
low molecular mass heat shock protein Oshsp17.7. OSHSP17.7. class I LMMHSP.
CAA63571.1 X92984 Pseudotsuga menziesii
low molecular weight heat-shock protein.
SEQ ID NO: 901
AAG08959.1 AF122051 Solanum tuberosum
tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class transcription factor.
AAG08960.1 AF122052 Solanum tuberosum
tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class
transcription factor.
AAG08961.1 AF122053 Solanum tuberosum
tuber-specific and sucrose-responsive element binding factor. TSF. R2R3 MYB class
transcription factor.
AAF67053.1 AF190304 Adiantum raddianum
c-myb-like transcription factor. MYB3R-1, contains three MYB repeats.
AAF67052.1 AF190303 Adiantum raddianum
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAF34434.1 AF172282 Oryza sativa
myb-like protein. DUPR11.29.

AAF78888.1 AF189786 Physcomitrella patens
putative c-myb-like transcription factor, MYB3R-1. PpMYB3R-1.
AAF78887.1 AF189785 Physcomitrella patens
putative c-myb-like transcription factor, MYB3R-1, PpMYB3R-1.
AAF43043.1 AF236059 Papaver rhoeas
putative Myb-related domain. pmr.
BAA94769.1 AP001859 Oryza sativa
Similar to Arabidopsis thaliana chromosome 4, BAC clone F4D11; putative myb-protein.
(AL022537).
AAF78890.1 AF189788 Hordeum vulgare
putative c-myb-like transcription factor. MYB3R-1. HvMYB3R-1.
AAF78889.1 AF189787 Hordeum vulgare
putative c-myb-like transcription factor. MYB3R-1. HvMYB3R-1.
BAA88169.1 AP000836 Oryza sativa
Similar to putative transcription factor (AF062890).
BAA88205.1 AP000837 Oryza sativa
Similar to putative transcription factor (AF062890).
CAA78388.1 Z13998 Petunia x hybrida
DNA-binding protein; transcriptional activator. protein 3. myb.Ph3. related to animal myb
proto-oncoproteins.
AAF67051.1 AF190302 Secale cereale
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAF67050.1 AF190301 Secale cereale
c-myb-like transcription factor. MYB3R-1. contains three MYB repeats.
AAG28525.1 AF198498 Nicotiana tabacum
anther-specific myb-related protein 2. mybAS2. NtMYBAS2; contains tandem R2, R3 myb
domains similar to c-myb family.
BAB12688.1 AP002746 Oryza sativa
putative MYB family transcription factor. P0671B11.3. contains ESTs AU082307(E0784),C72014(E0784).
BAA99440.1 AP002743 Oryza sativa
putative MYB family transcription factor. P0710E05.27. contains ESTs
AU082307(E0784),C72014(E0784).
AAK19619.1 AF336286 Gossypium hirsutum
GHMYB9. ghmyb9. similar to myb.
CAA64615.1 X95297 Lycopersicon esculentum
transcription factor. THM1. myb-related.
BAA81730.1 AB029159 Glycine max
GmMYB29A1.
CAA50224.1 X70879 Hordeum vulgare
MybHv1. myb1.
CAA50222.1 X70877 Hordeum vulgare
MybHv1. myb1.

CAB40189.1 AJ133638 Avena sativa
transcriptional activator. myb protein. gamyb.
AAG28526.1 AF198499 Nicotiana tabacum
anther-specific myb-related protein 1. mybAS1. NtMYBAS1; contains N-terminal R2, R3
myb domain repeats similar to c-myb.
AAD31395.1 AF114162 Lolium temulentum
gibberellin MYB transcription factor. GAMyb. R2/R3-MYB.
BAA81732.1 AB029161 Glycine max
GmMYB29A2.
BAA81731.1 AB029160 Glycine max
GmMYB29A1.
CAA61021.1 X87690 Hordeum vulgare
transcriptional activator of alpha-amylase gene promoter. GAMyb protein. Gaml.
AAG22863.1 AY008692 Hordeum vulgare
transcription factor GAMyb. Gamyb.
BAA96421.1 AB044084 Triticum aestivum
transcription activator for gibberellin response. GAMyb protein. Ta-GAMyb.
BAA81733.2 AB029162 Glycine max
GmMYB29A2.
BAA81736.1 AB029165 Glycine max
GmMYB29B2.
AAA33067.1 L04497 Gossypium hirsutum
MYB A; putative.
BAB39972.1 AP003018 Oryza sativa
putative transcription factor (myb). OSJNBa0004B13.27. contains ESTs
AU097474(S5087),D40175(S1959).
CAA72218.1 Y11415 Oryza sativa
myb.
CAA67000.1 X98355 Oryza sativa
activator of alpha-amylase gene promoter. transcription factor GAMyb. Gam1. Myb-like;
expression is regulated by gibberellin.
BAB39987.1 AP003020 Oryza sativa
putative transcription factor (myb). P0498A12.16. contains ESTs
AU097474(S5087),D40175(S1959).
CAA78387.1 Z13997 Petunia x hybrida
DNA-binding protein, transcriptional activator. protein 2. myb.Ph2. related to animal myb
proto-oncoproteins.
CAA72217.1 Y11414 Oryza sativa
myb.
BAA23341.1 D88621 Oryza sativa
transfactor. OSMYB5. Osmyb5.

BAA93038.1 AP001552 Oryza sativa
EST AU082058(C12976) corresponds to a region of the predicted gene. Similar to
Arabidopsis thaliana putative transcription factor (AF062916).
CAA64614.1 X95296 Lycopersicon esculentum
transcription factor. THM27. myb-related.
AAK19616.1 AF336283 Gossypium hirsutum
GHMYB25. ghmyb25. similar to myb; contains an unspliced intron.
CAA78386.1 Z13996 Petunia x hybrida
DNA binding protein; transcriptional activator. protein 1. myb.Ph3. Product related to animal
myb proto-oncoproteins. Sequence from nucleotide 992 is not included in clone cPF1 and has
been obtained by PCR amplification of cDNA.
CAA67575.1 X99134 Lycopersicon esculentum
transcription factor. THM6. myb-related.
BAA88222.1 AB028650 Nicotiana tabacum
myb-related transcription factor LBM2. lbm2.
SEQ ID NO: 902
CAA57773.1 X82329 Arachis hypogaea
chitinase (class II). chi2;1.
AAD54935.1 AF141373 Petroselinum crispum
random hydrolysis of 1,4-beta-acetamido-2-deoxy-D-glucoside linkages in chitin. chitinase
precursor. Chi2-1. class II.
AAD54936.1 AF141374 Petroselinum crispum
random hydrolysis of 1,4-beta-acetamido-2-deoxy-D-glucoside linkages in chitin. chitinase
precursor. Chi2-2. class II.
AAF00131.1 AF147091 Fragaria x ananassa
chitin degradation. class II chitinase. Chi2-1.
AAC95376.1 AF105426 Cynodon dactylon
chitinase. Cht2.
BAA95846.1 AP002070 Oryza sativa
Similar to Oryza sativa clone RGCH7 chitinase. (AF013581).
AAA32986.1 M95835 Brassica napus
endochitinase. Ch25.
AAF69783.1 AF135143 Arabis lemmonii
class I chitinase.
AAF69775.1 AF135135 Arabis drummondii
class I chitinase.
AAF69792.1 AF135152 Arabis parishii
class I chitinase.
AAC95375.1 AF105425 Cynodon dactylon
chitinase. Cht1.
AAF69785.1 AF135145 Arabis lignifera
class I chitinase.

AAF69770.1 AF135130 Arabis holboellii
class I chitinase.
AAF69781.1 AF135141 Arabis gunnisoniana
class I chitinase.
AAF69777.1 AF135137 Arabis fecunda
class I chitinase.
AAF69790.1 AF135150 Arabis microphylla
class I chitinase.
AAF69787.1 AF135147 Arabis lignifera
class I chitinase.
AAF69772.1 AF135132 Arabis gunnisoniana
class I chitinase.
AAF69782.1 AF135142 Halimolobos perplexa var. perplexa
class I chitinase.
AAF69784.1 AF135144 Arabis lemmonii
class I chitinase.
AAF69788.1 AF135148 Arabis lyallii
class I chitinase.
BAA03750.1 D16222 Oryza sativa
endochitinase. Cht-2.
AAF69776.1 AF135136 Arabis fecunda
class I chitinase.
CAA40107.1 X56787 Oryza sativa
chitinase.
BAB13369.1 AB048531 Psophocarpus tetragonolobus
class I chitinase.
AAF69778.1 AF135138 Arabis glabra
class I chitinase.
AAF69786.1 AF135146 Arabis lignifera
class I chitinase.
BAA82826.1 AB023464 Arabis gemmifera
basic endochitinase. ChiB.
AAF69773.1 AF135133 Arabis blepharophylla
class I chitinase.
AAF69791.1 AF135151 Arabis microphylla
class I chitinase.
AAF69793.1 AF135153 Arabis parishii
class I chitinase.
CAA39535.1 X56063 Oryza sativa
CAA39535.1 X56063 Oryza sativa
chitinase.
chitinase.

AAF69789.1 AF135149 Arabis microphylla
class I chitinase.
CAA71402.1 Y10373 Medicago truncatula
chitinase.
AAC16010.1 AF061805 Elaeagnus umbellata
acidic chitinase.
CAA53626.1 X76041 Triticum aestivum
endochitinase, CHI.
BAA33971.1 AB008892 Nicotiana tabacum
chitinase 134. Chn134.
CAA47921.1 X67693 Solanum tuberosum
chitinase. SK2, endochitinase.
AAF69780.1 AF135140 Arabis glabra
class I chitinase.
BAB18519.1 AB051578 Secale cereale
seed chitinase-a. rsca.
AAA51377.1 L37289 Oryza sativa
chitinolytic activity, antifungal activity. chitinase.
AAB41324.1 U83591 Medicago sativa
class I chitinase.
CAC17793.1 AJ301671 Nicotiana sylvestris
hydrolysis of chitin. endochitinase. chnb. class I chitinase.
AAB41325.1 U83592 Medicago sativa
class I chitinase.
AAB23263.1 S43926 Phaseolus vulgaris
chitinase. CH5B. This sequence comes from Fig. 1.
AAA33756.1 M13968 Phaseolus vulgaris
chitinase (EC 3.2.1.14).
CAA35945.1 X51599 Nicotiana tabacum
chitinase. CHN50.
AAA34070.1 M15173 Nicotiana tabacum
endochitinase precursor (EC 3.2.1.14). CAA45822.1 X64519 Nicotiana tabacum
chitinase B class I. CHN200.
SEQ ID NO: 903 BAA78764.1 AB023482 Oryza sativa
• · · · · · · · · · · · · · · · · · · ·
ESTs C98382(C2985),D22444(C11129) correspond to a region of the predicted gene.; Similar to Arabidopsis thaliana APK1 gene for protein tyrosine-serine-threonine kinase.(D12522).
AAF43496.1 AF131222 Lophopyrum elongatum
protein serine/threonine kinase. ESI47. induced in roots by salt stress, osmotic stress, and
ABA treatment.
AAK11674.1 AF339747 Lophopyrum elongatum
protein kinase. ESI47.

AAG16628.1 AY007545 Brassica napus protein serine/threonine kinase BNK1. BAA94509.1 AB041503 Populus nigra protein kinase 1. PnPK1. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). BAA94510.1 AB041504 Populus nigra protein kinase 2. PnPK2. BAB16871.1 AP002537 Oryza sativa putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). BAB03429.1 AP002817 Oryza sativa EST C22619(S11214) corresponds to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 2, BAC clone T17D12; putative protein kinase (AC006587). BAB07999.1 AP002525 Oryza sativa putative protein kinase. P0462H08.22. contains EST C22619(S11214). BAB39409.1 AP002901 Oryza sativa putative protein kinase. P0456F08.9. contains EST C23560(R0290). BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. CAB51834.1 00069 Oryza sativa 11332.5. contains eukaryotic protein kinase domain PF. BAB39873.1 AP002882 Oryza sativa putative protein kinase, P0439B06.8, contains ESTs AU056701(S20808), AU056702(S20808). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. AAG03090.1 AC073405 Orvza sativa Similar to an Arabidopsis somatic embryogenesis receptor-like kinase (AC007504). BAB19337.1 AP003044 Orvza sativa putative protein kinase. P0038C05.10. contains ESTs AU056335(S20481),AU056336(S20481). BAA90808.1 AP001168 Oryza sativa Similar to putative receptor-like protein kinase (AL035679). AAG59657.1 AC084319 Oryza sativa putative protein kinase. OSJNBa0004B24.20. AAB47424.1 U59317 Lycopersicon pimpinellifolium serine/threonine protein kinase Fen. Fen. fenthion sensitivity gene from tomato.

AAC48932.1 U13923 Lycopersicon pimpinellifolium Fen. putative serine/threonine protein kinase; similar to product encoded by Lycopersicon pimpinellifolium Pto gene, GenBank Accession Number U02271; Fen is a member of the Pto gene family. AAF76307.1 AF220602 Lycopersicon pimpinellifolium Fen kinase. BAA92221.1 AP001278 Oryza sativa Similar to Arabidopsis thaliana chromosome II BAC F12L6 genomic sequence, putative protein kinase. (AC004218). BAA87852.1 AP000816 Oryza sativa Similar to putative Ser/Thr protein kinase. (AC004218). AAB61708.1 U93048 Daucus carota somatic embryogenesis receptor-like kinase. SERK. AAK11566.1 AF318490 Lycopersicon hirsutum Pto-like protein kinase E. LhirPtoE. confers resistance to bacterial speck disease. AAK11568.1 AF318492 Lycopersicon hirsutum Pto-like protein kinase B. LhirPtoB. AAD21872.1 AF078082 Phaseolus vulgaris receptor-like protein kinase homolog RK20-1. AAF66615.1 AF142596 Nicotiana tabacum LRR receptor-like protein kinase. AAC23542.1 U20948 Ipomoea trifida receptor protein kinase. IRK1. AAF91337.1 AF249318 Glycine max Ptil kinase-like protein. Ptilb. protein kinase. AAC27894.1 AF023164 Zea mays leucine-rich repeat transmembrane protein kinase 1, ltk1. AAF76314.1 AF220603 Lycopersicon esculentum Fen kinase. Lescfen. AAB47422.1 U59318 Lycopersicon esculentum serine/threonine protein kinase Fen. fen. allele of Fen, fenthion sensitivity gene from tomato. AAF76313.1 AF220603 Lycopersicon esculentum Pto kinase. LescPth5. AAB47421.1 U59316 Lycopersicon esculentum serine/threonine protein kinase Pto. pto. allele of Pto bacterial speck disease resistance gene in tomato. AAF91336.1 AF249317 Glycine max Ptil kinase-like protein. Ptila. protein kinase. AAK11567.1 AF318491 Lycopersicon hirsutum Pto-like protein kinase F. LhirPtoF. AAC61805.1 U28007 Lycopersicon esculentum serine/threonine protein kinase. Pto kinase interactor 1. Pti1. Pti1 kinase.

AAB93834.1 U82481 Zea mays
KI domain interacting kinase 1. KIK1. receptor-like protein kinase; serine/threonine protein kinase.
CAA97692.1 Z73295 Catharanthus roseus
receptor-like protein kinase. CRPK1. Autophosphorylation predominantly on Thr, less on Ser. Mechanism: autophosphorylation in cis.
CAA73134.1 Y12531 Brassica oleracea
serine/threonine kinase. BRLK.
AAF76306.1 AF220602 Lycopersicon pimpinellifolium
Pto kinase.
AAB47423.1 U59315 Lycopersicon pimpinellifolium
serine/threonine protein kinase Pto. Pto. bacterial speck disease resistance in tomato; disease resistance gene.
BAB21241.1 AP002953 Oryza sativa
Putative Pto kinase interactor 1. P0426D06.21. contains ESTs AU108280(E0721),D48017(S13927).
AAC48914.1 U02271 Lycopersicon pimpinellifolium
protein kinase.
SEQ ID NO: 904
AAF65545.1 AF233894 Perilla citriodora
limonene synthase.
AAG31437.1 AF241792 Perilla frutescens
limonene synthase.
AAK06663.1 AF317695 Perilla frutescens var. frutescens
limonene synthase.
AAG31435.1 AF241790 Perilla citriodora
limonene synthase.
BAA21629.1 AB005744 Perilla frutescens
catalyzing the cyclization of geranyl pyrophosphate to 1-limonene. 1-limonene synthase. gPFLC. similar to perilla PFLC-1:DDBJ Acc#D49368.
AAG31438.1 AF241793 Perilla frutescens
limonene synthase.
BAA08367.1 D49368 Perilla frutescens
limonene cyclase.
AAC37366.1 L13459 Mentha spicata
4S-limonene synthase.
AAD50304.1 AF175323 Mentha longifolia
limonene synthase. monoterpene synthase.
AAG01140.1 AF282875 Schizonepeta tenuifolia
(+)-4R-limonene synthase.
AAF21053.1 AF212433 Capsicum annuum
UV-induced sesquiterpene cyclase. SC2.

BAA82141.1 AB023816 Solanum tuberosum
vetispiradiene synthase. PVS4. potato sesquiterpene cyclase.
AAF74977.1 AF270425 Gossypium hirsutum
(E,E)-farnesyl diphosphate cyclase. (+)-delta-cadinene synthase. cdn2. sesquiterpene cyclase.
BAA82092.1 AB022598 Solanum tuberosum
vetispiradiene synthase. PVS1. potato sesquiterpene cyclase.
BAA82109.1 AB022720 Solanum tuberosum
vetispiradiene synthase. PVS3. potato sesquiterpene cyclase; PVS3.
AAG09949.1 AF171216 Lycopersicon esculentum
vetispiradiene synthase. LEVS2. sesquiterpene cyclase.
BAA82108.1 AB022719 Solanum tuberosum
vetispiradiene synthase. PVS2. potato sesquiterpene cyclase; PVS2.
AAC12784.1 U88318 Gossypium hirsutum
(E,E)-farnesyl diphosphate cyclizing. (+)-delta-cadinene synthase. cdn1. sesquiterpene
cyclase; delta-cadinene synthase.
AAK15641.1 AF326117 Capsicum annuum
sesquiterpene cyclase, PSC2.
AAC61260.1 AF061285 Capsicum annuum
sesquiterpene cyclase. UV induced.
AAG24640.2 AF304444 Artemisia annua
sesquiterpene cyclase.
CAC12731.1 AJ271792 Artemisia annua
putative sesquiterpene cyclase. cASC125.
SEQ ID NO: 905
AAF64450.1 AF239928 Euphorbia esula
glutathione S-transferase. similar to auxin-inducible GST.
AAG34803.1 AF243368 Glycine max
glutathione S-transferase GST 13.
AAG16759.1 AY007561 Lycopersicon esculentum
putative glutathione S-transferase T4.
AAG34798.1 AF243363 Glycine max
glutathione S-transferase GST 8.
AAG34797.1 AF243362 Glycine max
glutathione S-transferase GST 7.
AAG16758.1 AY007560 Lycopersicon esculentum
putative glutathione S-transferase T3.
AAG34809.1 AF243374 Glycine max
glutathione S-transferase GST 19.
AAG34801.1 AF243366 Glycine max
glutathione S-transferase GST 11.
AAG34796.1 AF243361 Glycine max
glutathione S-transferase GST 6.

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AAG34807.1 AF243372 Glycine max
glutathione S-transferase GST 17.
AAG16757.1 AY007559 Lycopersicon esculentum
putative glutathione S-transferase T2.
AAG16756.1 AY007558 Lycopersicon esculentum
putative glutathione S-transferase T1.
AAG34804.1 AF243369 Glycine max
glutathione S-transferase GST 14.
AAG34810.1 AF243375 Glycine max
glutathione S-transferase GST 20.
AAG34808.1 AF243373 Glycine max
glutathione S-transferase GST 18.
AAG34805.1 AF243370 Glycine max
glutathione S-transferase GST 15.
AAG34844.1 AF244701 Zea mays
glutathione S-transferase GST 36.
AAG34829.1 AF244686 Zea mays
glutathione S-transferase GST 21.
AAG34831.1 AF244688 Zea mays
glutathione S-transferase GST 23.
AAA68430.1 J03679 Solanum tuberosum
glutathione S-transferase. gst1. previously called pathogenesis-related protein; prp1-1.
AAC18566.1 AF048978 Glycine max
2,4-D inducible glutathione S-transferase. GSTa.
AAG34832.1 AF244689 Zea mays
glutathione S-transferase GST 24.
AAG34800.1 AF243365 Glycine max
glutathione S-transferase GST 10.
AAG34849.1 AF244706 Zea mays
glutathione S-transferase GST 41.
AAG34837.1 AF244694 Zea mays
glutathione S-transferase GST 29.
AAC32118.1 AF051214 Picea mariana
probable glutathione S-transferase. Sb18. similar to Nicotiana tabacum probable glutathione
S-transferase encoded by GenBank Accession Number X56266.
AAG41204.1 AF321437 Suaeda maritima
glutathione transferase.
AAG34802.1 AF243367 Glycine max
glutathione S-transferase GST 12.
AAF29773.1 AF159229 Gossypium hirsutum
glutathione S-transferase. GST.
AAG32472.1 AF309379 Oryza sativa subsp. japonica
putative glutathione S-transferase OsGSTU3.

AAG34836.1 AF244693 Zea mays
glutathione S-transferase GST 28.
CAA04391.1 AJ000923 Carica papaya
glutathione transferase. PGST1.
CAA71784.1 Y10820 Glycine max
glutathione transferase.
CAA09187.1 AJ010448 Alopecurus myosuroides
glutathione transferase. GST1a.
AAG34795.1 AF243360 Glycine max
glutathione S-transferase GST 5.
CAA09188.1 AJ010449 Alopecurus myosuroides
glutathione transferase. GST1b.
AAG34806.1 AF243371 Glycine max
glutathione S-transferase GST 16.
CAC24549.1 AJ296343 Cichorium intybus x Cichorium endivia
glutathione S-transferase. chi-GST1. auxin-induced GST.
AAC28101.1 AF079511 Mesembryanthemum crystallinum
glutathione S-transferase.
SEQ ID NO: 907
AAA33280.1 L20475 Datura stramonium
29kDa protein; high homology to aa sequence of tropinone reductases.
AAA33281.1 L20473 Datura stramonium
catalyses a stereospecific reduction of tropinone to tropine. tropinone reductase-I.
CAC34420.1 AJ307584 Solanum tuberosum
tropine forming tropinone reductase. tropinone reductase I. TRI.
BAA85844.1 AB026544 Hyoscyamus niger
tropinone reductase-I. tr1.
BAA13547.1 D88156 Hyoscyamus niger
tropinone reductase-I.
AAA33282.1 L20474 Datura stramonium
catalyses a stereospecific reduction of tropinone to pseudotropine. tropinone reductase-II.
AAB09776.1 L20485 Hyoscyamus niger
tropinone reductase-II.
BAA85845.1 AB026545 Hyoscyamus niger
tropinone reductase-II. tr2.
CAB52307.1 AJ245634 Solanum tuberosum
pseudotropine forming tropinone reductase. tropinone reductase II. TRII.
CAC19810.1 AJ292343 Solanum tuberosum
pseudotropine forming tropinone reductase. tropinone reductase II. trII.
CAA45866.1 X64566 Cuphea lanceolata
beta-ketoacyl-ACP reductase. Clkr27. 3-oxoacyl-[acyl-carrier protein] reductase.

CAA45793.1 X64463 Brassica napus
3-oxoacyl-[acyl-carrier protein] reductase.
AAB82767.1 U89509 Zea mays
cuticular wax biosynthesis. b-keto acyl reductase. glossy8.
AAB82766.1 U89510 Hordeum vulgare
cuticular wax biosynthesis. b-keto acyl reductase. glossy8.
CAA74176.1 Y13861 Nicotiana tabacum
enoyl-ACP reductase. enr-T2.
AAB20114.2 S60064 Brassica napus
enoyl-acyl carrier protein reductase. This sequence comes from fig3; conceptual translation
differs from published sequence.
CAA74177.1 Y13862 Nicotiana tabacum
enoyl-ACP reductase. enr-T1.
AAC78100.1 AF093628 Oryza sativa
protochlorophyllide reductase homolog.
CAA05879.1 AJ003124 Petunia x hybrida
enoyl-ACP reductase. pte.
CAA64729.1 X95462 Brassica napus
enoyl reductase.
CAA05816.1 AJ003025 Oryza sativa
enoyl-ACP reductase.
BAA99570.1 AB036823 Chlorella vulgaris
oxidoreductase. oxi.
SEQ ID NO: 909
BAA82107.1 AB022693 Nicotiana tabacum
transcription factor. NtWRKY1.
AAC31956.1 AF080595 Pimpinella brachycarpa
zinc finger protein. ZFP1. WRKY1.
AAD55974.1 AF121353 Petroselinum crispum
zinc-finger type transcription factor WRKY1. WRKY1.
BAA77383.1 AB020590 Nicotiana tabacum
transcription factor NtWRKY2.
AAC49527.1 U48831 Petroselinum crispum
WRKY1. contains two WRKY domains; WRKY-type DNA-binding protein; sequence-
specific DNA-binding protein.
AAD32677.1 AF140554 Avena sativa
DNA-binding protein WRKY1, wrky1. putative transcription factor.
CAA88326.1 Z48429 Avena fatua
binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein.
AAD16139.1 AF096299 Nicotiana tabacum
DNA-binding protein 2. WRKY2. transcription factor.
BAA86031.1 AB026890 Nicotiana tabacum
transcription factor NtWRKY4.

AAC37515.1 L44134 Cucumis sativus SPF1-like DNA-binding protein. AAK16171.1 AC079887 Oryza sativa putative DNA-binding protein. OSJNBa0040E01.10. AAF23898.1 AF193802 Oryza sativa zinc finger transcription factor WRKY1. AAD16138.1 AF096298 Nicotiana tabacum DNA-binding protein 1. WRKY1. transcription factor. AAC49529.1 U58540 Petroselinum crispum WRKY2. Contains two WRKY domains; WRKY-type DNA-binding protein. CAB97004.1 AJ278507 Solanum tuberosum putative transcription factor. WRKY DNA binding protein. WRKY1. BAB19075.1 AP002744 Oryza sativa putative DNA-binding protein homolog. P0006C01.17. BAB19096.1 AP002839 Oryza sativa putative DNA-binding protein homolog. P0688A04.2. AAK16170.1 AC079887 Oryza sativa putative DNA binding protein. OSJNBa0040E01.4. BAB40073.1 AP003074 Oryza sativa putative WRKY DNA binding protein. OSJNBa0004G10.20. contains EST C26525(C12525). AAD38283.1 AC007789 Oryza sativa putative WRKY DNA binding protein. OSJNBa0049B20.9. BAB18313.1 AP002865 Oryza sativa putative WRKY DNA binding protein. P0034C11.1. contains EST C26525(C12525). CAA88331.1 Z48431 Avena fatua binds conserved cis-element from cereal alpha-Amy2 promoters. DNA-binding protein. AAC49528.1 U56834 Petroselinum crispum DNA-binding. WRKY3. WRKY-type DNA-binding protein. AAG35658.1 AF204925 Petroselinum crispum transcription factor WRKY4. WRKY4. binds to W box (TTGACC) elements. BAB16432.1 AB041520 Nicotiana tabacum WRKY transcription factor Nt-SubD48. Nt-SubD48. AAD32676.1 AF140553 Avena sativa DNA-binding protein WRKY3. wrky3. putative transcription factor. AAG46150.1 AC018727 Oryza sativa putative DNA-binding protein. OSJNBa0056G17.18. BAA77358.1 AB020023 Nicotiana tabacum WRKY domain Zn-finger type DNA-binding protein, DNA-binding protein NtWRKY3. AAG35659.1 AF204926 Petroselinum crispum transcription factor WRKY5. WRKY5. binds to W box (TTGACC) elements. Petroselinum crispum AAD27591.1 AF121354 binds sequence specifically to W Boxes (TTGACC), transcription factor, WRKY3, sequence specific DNA-binding protein.

CAB66338.1 AJ279697 Betula pendula
wrky-type DNA binding protein. wrky.
AAF61864.1 AF193771 Nicotiana tabacum
DNA-binding protein 4. WRKY4. transcription factor.
BAA87069.1 AB035271 Matricaria chamomilla
elicitor-induced DNA-binding protein homolog. McWRKY1.
AAF61863.1 AF193770 Nicotiana tabacum
DNA-binding protein 3. WRKY3. transcription factor.
SEQ ID NO: 910
AAC09420.1 M68929 Mitochondrion Marchantia polymorpha
rps14.
CAA33994.1 X15901 Plastid Oryza sativa
ribosomal protein S14. rps14.
SEQ ID NO: 911
CAA55128.1 X78325 Nicotiana tabacum
chitinase/lysozyme. Pz.
CAA54373.1 X77110 Nicotiana tabacum
chitinase, class V. chi-V.
CAA54374.1 X77111 Nicotiana tabacum
chitinase, class V. chi-V.
SEQ ID NO: 912
CAB55394.1 AL117264 Oryza sativa
zwh0010.1. similar to Arabidopsis germin-like protein 6 (AF032976); Method: conceptual
translation with partial peptide sequencing.
BAA78563.1 AB024338 Atriplex lentiformis
germin-like protein.
AAB97470.1 AF042489 Oryza sativa
germin-like protein 16. glp16.
AAA33030.1 M93041 Mesembryanthemum crystallinum
germin-like protein. germin-like protein. CAB65371.1 AJ250834 Pisum sativum
germin-like protein. ger2b. 2nd variant of the clone PsGER2.
CAB55559.1 AJ237943 Triticum aestivum
germin-like protein. glp2b.
CAB65370.1 AJ250833 Pisum sativum
germin-like protein. ger2a. 1st variant of this clone. CAB55558.1 AJ237942 Triticum aestivum
germin-like protein. glp2a.
AAD43971.1 AF141878 Oryza sativa
germin-like protein 1 precursor. RGLP1. similar to barley epidermis/papilla-specific oxalate oxidase-like protein.
ovidase-nue biotem.

AAD43973.1 AF141880 Oryza sativa
germin-like protein 1 precursor. RGLP1. similar to barley epidermis/papilla-specific oxalate
oxidase-like protein.
AAC04837.1 AF032976 Oryza sativa
germin-like protein 6. GER6. similar to wheat and barley oxalate oxidase.
AAG00425.1 AF250933 Hordeum vulgare
germin A. GerA. apoplastic protein; contains prepeptide for targeting into the cell wall.
AAD43972.1 AF141879 Oryza sativa
germin-like protein 2 precursor. RGLP2. similar to barley epidermis/papilla-specific oxalate
oxidase-like protein. CAA63659.1 X93171 Hordeum vulgare
==== v. g
oxalate oxidase-like protein or germin-like protein. AAC04833.1 AF032972 Oryza sativa
germin-like protein 2. GER2. similar to wheat and barley oxalate oxidase.
AAC04834.1 AF032973 Oryza sativa
germin-like protein 3. GER3. similar to wheat and barley oxalate oxidase.
AAC04832.1 AF032971 Oryza sativa
germin-like protein 1. GER1. similar to wheat and barley oxalate oxidase.
AAG00426.1 AF250934 Hordeum vulgare
germin B. GerB. apoplastic protein; contains prepeptide for targeting into the cell wall.
AAG00427.1 AF250935 Hordeum vulgare
germin F. GerF. apoplastic protein; contains prepeptide for targeting into the cell wall.
AAF34811.1 AF005084 Triticum aestivum
oxalate oxidase. up-regulated by aluminum.
AAC04835.1 AF032974 Oryza sativa
germin-like protein 4. GER4. similar to wheat and barley oxalate oxidase.
BAB39965.1 AP003018 Oryza sativa
probable germin protein 4. OSJNBa0004B13.19. contains ESTs
AU101991(S4037),AU070167(R0031).
BAB39980.1 AP003020 Oryza sativa
probable germin protein 4. P0498A12.8. contains ESTs
AU101991(S4037),AU070167(R0031).
AAG00428.1 AF250936 Hordeum vulgare
germin D. GerD. apoplastic protein; contains prepeptide for targeting into the cell wall.
AAA20245.1 U01963 Hordeum vulgare
germin subunit.
CAC19429.1 AJ291825 Lolium perenne
oxalate oxidase. oxO1.
AAA34270.1 M63223 Triticum aestivum
germin. germin 9f-2.8.
AAA34268.1 M21962 Triticum aestivum
germin protein precursor.

CAA74595.1 Y14203 Hordeum vulgare
oxalate oxidase.
AAG00429.1 AF250937 Hordeum vulgare
germin E. GerE. apoplastic protein.
CAB65369.1 AJ250832 Pisum sativum
germin-like protein. ger1.
AAA32959.1 L15737 Hordeum vulgare
oxalate oxidase. This is the sequence of the complete mature peptide.
CAA71052.1 Y09917 Triticum aestivum
germin homolog. pSBGer3.
AAA34271.1 M63224 Triticum aestivum .
germin. germin 9f-3.8.
CAA71050.1 Y09915 Triticum aestivum
germin homolog. pSBGer1.
BAB18339.1 AP002865 Oryza sativa
putative germin protein. P0034C11.30. contains EST C97263(C53484).
AAD38298.1 AC007789 Oryza sativa
putative oxalate oxidase (germin protein). OSJNBa0049B20.25.
BAA86880.1 AB028454 Barbula unguiculata
germin-like protein.
AAF03355.1 AF132671 Nicotiana plumbaginifolia
nectarin I precursor. NEC1. germin-like protein.
BAA25197.1 AB012138 Lycopersicon esculentum
adaptation to Mn-deficiency, germin-like protein. Mdip1.
AAC78470.1 AF067731 Solanum tuberosum
germin-like protein. OXAOXA. similar to oxalate oxidase.
AAC25777.1 AF072694 Oryza sativa
germin-like protein 7. GER7. similar to wheat and barley oxalate oxidase.
AAC99473.1 AF039201 Pinus caribaea
germin-like protein. PcGER1.
CAA71051.1 Y09916 Triticum aestivum
germin homolog. pSBGer2.
AAC05146.1 AF049065 Pinus radiata
germin-like protein. PRGer1.
CAC34417.1 AJ311624 Pisum sativum
Germin-like protein. glp3.
SEQ ID NO: 915
BAB19363.1 AP002542 Oryza sativa
putative beta-1,3-glucanase. P0679C08.2.
AAD10386.1 U72255 Oryza sativa
beta-1,3-glucanase precursor. Gns9.

CAB85903.1 AJ251646 Pisum sativum
hydrolysis of beta-1,3 conjugated glucans. beta-1,3 glucanase. gns2.
AAA90953.1 U30323 Triticum aestivum
beta 1,3-glucanase. Glc1.
BAA89481.1 AB029462 Salix gilgiana
beta-1,3-glucanase. SgGN1.
BAB40807.1 AB052291 Pyrus pyrifolia
catalyzing the hydrolysis of 1,3-beta-glucosyl linkages. endo-1,3-beta-glucanase-like protein.
bgn-1. Amino acid alignment of the protein(BGN-1) encoded by pear pollen bgn-1 with barley
endo-1,3-beta-glucanase(GII. accession number:pdb/1GHS-B/2.3/2/306/N/)(40% identity) and
their hydrophobic cluster analysis(HCA)(a overall HCA homology score of 87.1%) showed
that it was most likely that the bgn-1 encoded a endo-1,3-beta-glucanase. A higher identity(59.3%) was found between BGN-1 and a putative pea endo-1,3-beta-glucanase
(accession number:dad/AJ251646-1).
AAB82772.2 AF001523 Musa acuminata
beta-1, 3-glucananse. similar to beta-1, 3-glucanase.
CAA49513.1 X69887 Brassica napus
beta-1,3-glucanase homologue.
AAF08679.1 AF004838 Musa acuminata
beta-1,3-glucanase.
CAA82271.1 Z28697 Nicotiana tabacum
beta-1,3-glucanase.
AAD10384.1 U72253 Oryza sativa
beta-1,3-glucanase precursor. Gns7.
CAB71021.1 AJ271598 Hieracium piloselloides
putative role in callose degradation. putative beta-1,3-glucanase. gluc.
CAA30261.1 X07280 Nicotiana plumbaginifolia
beta-glucanase.
AAA51643.1 M23120 Nicotiana plumbaginifolia
beta-glucanase precursor.
AAA87456.1 U22147 Hevea brasiliensis
beta-1,3-glucanase. HGN1. hydrolytic enzyme.
AAA34078.1 M63634 Nicotiana plumbaginifolia
regulator of beta(1,3)-glucanase. beta(1,3)-glucanase regulator.
AAD10385.1 U72254 Oryza sativa
beta-1,3-glucanase precursor. Gns8.
CAB38443.1 AJ133470 Hevea brasiliensis
beta-1,3-glucanase. hgn1.
AAB03501.1 U41323 Glycine max
beta-1,3-glucanase. SGN1.
AAA32939.1 M62907 Hordeum vulgare
hydrolysis of beta-(1-3)-glucan. (1-3)-beta-glucanase. cBGL32.

AAD33881.1 AF141654 Nicotiana tabacum
beta-1,3-glucanase. GGL4.
AAA03617.1 M80604 Lycopersicon esculentum
beta-1,3-glucanase.
BAA77786.1 AB027431 Oryza sativa
beta-1,3-glucanase.
BAA77787.1 AB027432 Oryza sativa
beta-1,3-glucanase.
CAB91554.1 AJ277900 Vitis vinifera
beta 1-3 glucanase. g1.
AAC14399.1 AF030771 Hordeum vulgare
beta-1,3-glucanase 2. BGL32.
CAA03908.1 AJ000081 Citrus sinensis
glucan hydrolase. beta-1,3-glucanase. gns1.
AAG24921.1 AF311749 Hevea brasiliensis
beta-1,3-glucanase.
AAA33946.1 M37753 Glycine max
beta-1,3-endoglucanase (EC 3.2.1.39).
AAA63542.1 M59443 Nicotiana tabacum
acidic beta-1,3-glucanase. glucanase.
AAD28732.1 AF112965 Triticum aestivum
beta-1,3-glucanase precursor. Glb3.
AAD10381.1 U72250 Oryza sativa
beta-1,3-glucanase precursor. Gns4.
CAA57255.1 X81560 Nicotiana tabacum
(1-)-beta-glucanase. Sp41a.
AAD33880.1 AF141653 Nicotiana tabacum
beta-1,3-glucanase. GGL1.
AAB86541.1 AF030166 Oryza sativa
glucanase. glul.
AAA63539.1 M60402 Nicotiana tabacum
glucan beta-1,3-glucanase. glucanase GLA.
AAA34053.1 M60464 Nicotiana tabacum
beta-1,3-glucanase.
AAD10380.1 U72249 Oryza sativa
beta-1,3-glucanase precursor. Gns3.
AAA63540.1 M60403 Nicotiana tabacum
glucan-1,3-beta-glucosidase. glucanase GLB.
SEQ ID NO: 916
AAA85440.1 U32624 Sorghum bicolor
cytochrome P-450. CYP79. P450TYR; N-hydroxylase.

AAF27289.1 AF140613 Manihot esculenta
N-hydroxylating cytochrome P450. CYP79D1.
AAF27290.1 AF140614 Manihot esculenta
N-hydroxylating cytochrome P450. CYP79D2.
AAD03415.1 AF069494 Sinapis alba
converts tyrosine to para-hydrophenylacetaldoxime in para-hydroxybenzylglucosinolate biosynthesis. cytochrome P450. CYP79B1.
AAG59648.1 AC084319 Oryza sativa
putative cytochrome p450tyr. OSJNBa0004B24.15.
AAF66543.1 AF140609 Triglochin maritimum
cytochrome P450 CYP79E1. CYP79E1.
AAF66544.1 AF140610 Triglochin maritimum
cytochrome P450 CYP79E2. CYP79E2.
BAA92894.1 AB006790 Petunia x hybrida
cytochrome P450. IMT-2.
AAB94587.1 AF022458 Glycine max
CYP98A2p. CYP98A2. cytochrome P450 monooxygenase.
AAC32274.1 AF081575 Petunia x hybrida
flavonoid 3',5'-hydroxylase. Hfl. P450 enzyme.
AAD56282.1 AF155332 Petunia x hybrida
flavonoid 3'-hydroxylase. Ht1. cytochrome P450; CYP75B2.
CAA64635.1 X95342 Nicotiana tabacum
cytochrome P450. hsr515. hypersensitivity-related gene.
CAA50155.1 X70824 Solanum melongena
flavonoid hydroxylase (P450). CYP75.
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
BAA84071.1 AB028151 Antirrhinum majus
flavone synthase II. cytochrome P450. AFNS2.
AAD38930.1 AF135485 Glycine max
cytochrome P450 monooxygenaseCYP93D1. CYP93E1.
AAB17562.1 U72654 Eustoma grandiflorum
flavonoid 3'5'-hydroxylase. F3'5'H. cytochrome P450; CYP75.
AAG34695.1 AF313492 Matthiola incana
putative cytochrome P450.
CAA65580.1 X96784 Nicotiana tabacum
cytochrome P450. hsr515.
BAA93634.1 AB025016 Lotus japonicus
cytochrome P450.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.

AAB94590.1 AF022461 Glycine max
CYP82C1p. CYP82C1. cytochrome P450 monooxygenase.
CAA71876.1 Y10982 Glycine max
putative cytochrome P450.
BAA12159.1 D83968 Glycine max
Cytochrome P-450 (CYP93A1).
AAG14962.1 AF214008 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H2.
BAA74465.1 AB022732 Glycyrrhiza echinata
cytochrome P450. CYP Ge-31.
BAA22422.1 AB001379 Glycyrrhiza echinata
cytochrome P450. CYP81E1.
AAG14961.1 AF214007 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H1.
CAA04117.1 AJ000478 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B11. chimeric sequence (from 5'-
race).
CAA04116.1 AJ000477 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B1c.
AAB94593.1 AF022464 Glycine max
CYP77A3p. CYP77A3. cytochrome P450 monooxygenase.
BAA13076.1 D86351 Glycine max
cytochrome P-450 (CYP93A2).
CAA50647.1 X71656 Solanum melongena
P450 hydroxylase.
SEQ ID NO: 918
CAA06223.1 AJ004923 Lycopersicon esculentum
Squalene epoxidase. ERG.
SEQ ID NO: 919
AAF71823.1 AF153276 Populus tremula x Populus tremuloides
pumilio domain-containing protein PPD1. PPD1. similar to Drosophila pumilio protein RNA-
binding domain.
SEQ ID NO: 920
BAA82393.1 AP000367 Oryza sativa
EST C96716(C10608) corresponds to a region of the predicted gene.; Similar to putative
receptor protein kinase. (AC002334).
CAC20842.1 AJ250467 Pinus sylvestris
receptor protein kinase. upk.
AAB36558.1 U77888 Ipomoea nil
receptor-like protein kinase INRPK1. inrpk1. leucine-rich repeat.
AAF91324.1 AF244890 Glycine max
receptor-like protein kinase 3. RLK3. GmRLK3.

BAB40094.1 AP003210 Oryza sativa putative receptor protein kinase. OSJNBa0010K01.7. AAF91322.1 AF244888 Glycine max receptor-like protein kinase 1. RLK1. GmRLK1. AAC36318.1 AF053127 Malus x domestica leucine-rich receptor-like protein kinase. LRPKm1. BAA84787.1 AP000559 Oryza sativa ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar to receptor protein kinase, ERECTA (AC004484). BAA83373.1 AP000391 Oryza sativa ESTs C22657(S0014),C22656(S0014) correspond to a region of the predicted gene.; Similar to receptor protein kinase, ERECTA (AC004484). AAF59905.1 AF197946 Glycine max receptor protein kinase-like protein. CLV1A. AAK27806.1 AC022457 Orvza sativa putative protein kinase. OSJNBa0006L06.21. AAF91323.1 AF244889 Glycine max receptor-like protein kinase 2. RLK2. GmRLK2. AAF34426.1 AF172282 Oryza sativa leucine rich repeat containing protein kinase. DUPR11.16. AAK27817.1 AC022457 Oryza sativa putative protein kinase. OSJNBa0006L06.16. CAA61510.1 X89226 Oryza sativa leucine-rich repeat/receptor protein kinase. lrk2. BAB03621.1 AP002522 Oryza sativa putative protein kinase Xa21. P0009G03.21. AAB82755.1 U72725 Oryza longistaminata receptor kinase-like protein. Xa21 gene family member A1; downstream of microsatellite region; disease resistance gene family member. BAB03629.1 AP002522 Oryza sativa putative protein kinase Xa21. P0009G03.30. AAB61708.1 U93048 Daucus carota somatic embryogenesis receptor-like kinase. SERK. AAF66615.1 AF142596 Nicotiana tabacum LRR receptor-like protein kinase. AAB82756.1 U72724 Oryza sativa receptor kinase-like protein. Xa21 gene family member E. CAB51480.1 Y14600 Sorghum bicolor putative protein serine /threonine kinase. RLK1. accumulates in mesophyll cells. BAB39873.1 AP002882 Oryza sativa putative protein kinase. P0439B06.8. contains ESTs AU056701(S20808),AU056702(S20808).

BAB18321.1 AP002865 Oryza sativa putative receptor protein kinase. P0034C11.11. BAB40081.1 AP003074 Oryza sativa putative receptor protein kinase. OSJNBa0004G10.30. AAD38286.1 AC007789 Oryza sativa putative protein kinase. OSJNBa0049B20.13. BAB21240.1 AP002953 Oryza sativa Putative protein kinase. P0426D06.20. contains ESTs C22359(C11461), C22360(C11461). AAK21965.1 AY028699 Brassica napus receptor protein kinase PERK1. BAA87853.1 AP000816 Oryza sativa EST AU030604(E51294) corresponds to a region of the predicted gene. Similar to putative NAK-like Ser/Thr protein kinase. (AF001308). Oryza sativa BAB16871.1 AP002537 putative protein kinase APK1AArabidopsis thaliana. P0001B06.24. contains ESTs C22608(R3192),D25110(R3192). AAC27894.1 AF023164 Zea mays leucine-rich repeat transmembrane protein kinase 1. ltk1. AAK00425.1 AC069324 Oryza sativa Putative protein kinase. OSJNBa0071K19.11. AAG59657.1 AC084319 Oryza sativa putative protein kinase. OSJNBa0004B24.20. BAA94519.1 AP001800 Oryza sativa ESTs AU032341(R3918), AU071016(R10613) correspond to a region of the predicted gene. Similar to Arabidopsis thaliana chromosome 4, BAC F9D16; putative receptor kinase (AL035394). BAB07903.1 AP002835 Oryza sativa putative receptor kinase. P0417G05.10. contains ESTs AU032341(R3918),AU071016(R10613). **SEQ ID NO: 921** Pyrus pyrifolia BAA96250.1 AB027617 UDP-glucose pyrophosphorylase. BAA25917.1 AB013353 Pyrus pyrifolia UDP-glucose pyrophosphorylase. CAA62689.1 X91347 Hordeum vulgare UDP-glucose pyrophosphorylase. AAF62555.1 AF249880 Oryza sativa subsp. indica UDP-glucose pyrophosphorylase. UDPGase. SEO ID NO: 922 AAD03415.1 AF069494 Sinapis alba converts tyrosine to para-hydrophenylacetaldoxime in para-hydroxybenzylglucosinolate biosynthesis. cytochrome P450. CYP79B1.

AAA85440.1 U32624 Sorghum bicolor
cytochrome P-450. CYP79. P450TYR; N-hydroxylase.
AAF27289.1 AF140613 Manihot esculenta
N-hydroxylating cytochrome P450. CYP79D1.
AAF27290.1 AF140614 Manihot esculenta
N-hydroxylating cytochrome P450. CYP79D2.
AAG59648.1 AC084319 Oryza sativa
putative cytochrome p450tyr. OSJNBa0004B24.15.
AAF66543.1 AF140609 Triglochin maritimum
cytochrome P450 CYP79E1. CYP79E1.
AAF66544.1 AF140610 Triglochin maritimum
cytochrome P450 CYP79E2. CYP79E2.
BAA92894.1 AB006790 Petunia x hybrida
cytochrome P450. IMT-2.
AAD56282.1 AF155332 Petunia x hybrida
flavonoid 3'-hydroxylase. Ht1. cytochrome P450; CYP75B2.
CAA50155.1 X70824 Solanum melongena
flavonoid hydroxylase (P450). CYP75.
AAC32274.1 AF081575 Petunia x hybrida
flavonoid 3',5'-hydroxylase. Hfl. P450 enzyme.
AAG34695.1 AF313492 Matthiola incana
putative cytochrome P450.
AAA32913.1 M32885 Persea americana
cytochrome P-450LXXIA1 (cyp71A1).
CAA64635.1 X95342 Nicotiana tabacum
cytochrome P450. hsr515. hypersensitivity-related gene.
CAA65580.1 X96784 Nicotiana tabacum
cytochrome P450. hsr515.
AAB94587.1 AF022458 Glycine max
CYP98A2p. CYP98A2. cytochrome P450 monooxygenase.
AAB17562.1 U72654 Eustoma grandiflorum
flavonoid 3'5'-hydroxylase. F3'5'H. cytochrome P450; CYP75.
AAG09208.1 AF175278 Pisum sativum
wound-inducible P450 hydroxylase. CYP82A1.
AAD37433.1 AF150881 Lycopersicon esculentum x Lycopersicon peruvianum
catalyzes the hydroxylation of ferulic acid to 5-hydroxyferulic acid. ferulate-5-hydroxylase.
CYP84. cytochrome P450-dependent monooxygenase; F5H; FAH1.
CAA04117.1 AJ000478 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B11. chimeric sequence (from 5'-
race).
CAA04116.1 AJ000477 Helianthus tuberosus
fatty acid in-chain hydroxylase. cytochrome P450. CYP81B1c.

CARACTOR A ATTOCKED TO
CAB43505.1 AJ239051 Cicer arietinum
cytochrome P450. cyp81E2.
AAC49188.2 U29333 Pisum sativum
cytochrome P450 monooxygenase. CYP82. new cytochrome P450 family.
AAG14963.1 AF214009 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H3.
AAD38930.1 AF135485 Glycine max
cytochrome P450 monooxygenaseCYP93D1. CYP93E1.
AAG14962.1 AF214008 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H2.
AAG44132.1 AF218296 Pisum sativum
cytochrome P450. P450 isolog.
AAB94588.1 AF022459 Glycine max
CYP71D10p. CYP71D10. cytochrome P450 monooxygenase.
AAG14961.1 AF214007 Brassica napus
cytochrome p450-dependent monooxygenase. BNF5H1.
AAB94590.1 AF022461 Glycine max
CYP82C1p. CYP82C1. cytochrome P450 monooxygenase.
CAA71513.1 Y10489 Glycine max
putative cytochrome P450.
BAA84071.1 AB028151 Antirrhinum majus
flavone synthase II. cytochrome P450. AFNS2.
CAA50442.1 X71130 Petunia x hybrida
P450 hydroxylase. PET 1.
SEQ ID NO: 924
BAB20581.1 AB042268 Zea mays
response regulator 6. ZmRR6.
AAK14395.1 AF339732 Dianthus caryophyllus
response regulator protein. RR.
BAB20580.1 AB042267 Zea mays
response regulator 5. ZmRR5.
BAB20579.1 AB042261 Zea mays
response regulator 4. ZmRR4.
BAA85113.1 AB031012 Zea mays
response regulator 2. ZmRR2. cytokinin-inducible.
BAA82873.1 AB024291 Zea mays
response regulator. ZmRR2.
BAA75253.1 AB004882 Zea mays
response regulator. ZmCip1, cytokinin-inducible protein.
BAA85112.1 AB031011 Zea mays
response regulator 1. ZmRR1. cytokinin-inducible.

BAB17300.1 AB042260 Zea mays
response regulator. ZmRR3.
BAB20582.1 AB042269 Zea mays
response regulator 7. ZmRR7.
BAB41137.1 AB060130 Zea mays
response regulator 8. ZmRR8.
SEQ ID NO: 925
AAA33280.1 L20475 Datura stramonium
29kDa protein; high homology to aa sequence of tropinone reductases.
AAA33281.1 L20473 Datura stramonium
catalyses a stereospecific reduction of tropinone to tropine. tropinone reductase-I.
BAA85844.1 AB026544 Hyoscyamus niger
tropinone reductase-I. tr1.
CAC34420.1 AJ307584 Solanum tuberosum
tropine forming tropinone reductase. tropinone reductase I. TRI.
BAA13547.1 D88156 Hyoscyamus niger
tropinone reductase-I.
AAA33282.1 L20474 Datura stramonium
catalyses a stereospecific reduction of tropinone to pseudotropine. tropinone reductase-II.
BAA85845.1 AB026545 Hyoscyamus niger
tropinone reductase-II. tr2.
AAB09776.1 L20485 Hyoscyamus niger
tropinone reductase-II.
CAB52307.1 AJ245634 Solanum tuberosum
pseudotropine forming tropinone reductase. tropinone reductase II. TRII.
CAC19810.1 AJ292343 Solanum tuberosum
pseudotropine forming tropinone reductase. tropinone reductase II. trII.
CAA45866.1 X64566 Cuphea lanceolata
beta-ketoacyl-ACP reductase. Clkr27. 3-oxoacyl-[acyl-carrier protein] reductase.
CAA45793.1 X64463 Brassica napus
3-oxoacyl-[acyl-carrier protein] reductase.
AAB82767.1 U89509 Zea mays
cuticular wax biosynthesis. b-keto acyl reductase. glossy8.
AAB82766.1 U89510 Hordeum vulgare
cuticular wax biosynthesis. b-keto acyl reductase. glossy8.
AAB20114.2 S60064 Brassica napus
enoyl-acyl carrier protein reductase. This sequence comes from fig3; conceptual translation
differs from published sequence.
CAA74176.1 Y13861 Nicotiana tabacum
enoyl-ACP reductase. enr-T2.
AAB82764.1 U89511 Allium porrum
cuticular wax biosynthesis. b-keto acyl reductase. glossy8.

AAC78100.1 AF093628 Oryza sativa
protochlorophyllide reductase homolog.
CAA74177.1 Y13862 Nicotiana tabacum
enoyl-ACP reductase. enr-T1.
SEQ ID NO: 927
AAD43046.1 AF124045 Sorghum bicolor
GTP-binding protein-like. 110K5.8. terminal exon, defined by homology to maize ESTs.
SEQ ID NO: 928
CAA09619.1 AJ011418 Lycopersicon esculentum
ubiquitin activating enzyme.
AAC32140.1 AF051239 Picea mariana
probable ubiquitin activating enzyme 2. Sb53. similar to Arabidopsis thaliana ubiquitin
activating enzyme 2 encoded by GenBank Accession Number U40566.
AAA34308.1 M55604 Triticum aestivum
ubiquitin-activating enzyme E1. UBA1.
AAA34265.1 M90663 Triticum aestivum
ubiquitin activating enyme. E1.
AAA34266.1 M90664 Triticum aestivum
ubiquitin activating enzyme. E1.
CAA71762.1 Y10804 Nicotiana tabacum
Ubiquitin activating enzyme E1. UBA1.
SEQ ID NO: 929
CAA55693.1 X79086 Zea mays
initiator-binding protein. IBP2.
CAC19789.1 AJ251686 Catharanthus roseus
putative transcription factor. MYB-like DNA-binding protein. bpf-1.
CAA55691.1 X79085 Zea mays
initiator binding protein. IBP1.
AAF97508.1 AF242298 Oryza sativa
telomere binding protein-1. TBP1.
SEQ ID NO: 930
AAK15447.1 AC037426 Oryza sativa
putative flavin-containing monooxygenase. OSJNBb0014I11.12.
AAK15439.1 AC037426 Oryza sativa
putative flavin-containing monooxygenase. OSJNBb0014I11.8.
BAA88198.1 AP000837 Oryza sativa
Similar to human dimethylaniline monooxygenase (AC002376).
BAA88195.1 AP000837 Oryza sativa
Similar to human dimethylaniline monooxygenase (AC002376).
BAB32703.1 AP002902 Oryza sativa
dimethylaniline monooxygenase-like protein. P0492F05.5. contains EST C72123(E1029).

BAB07916.2 AP002835 Oryza sativa
dimethylaniline monooxygenase-like protein. P0417G05.24. contains EST C72123(E1029).
SEQ ID NO: 931
AAG38521.1 AF283536 Citrus x paradisi
cystatin-like protein. cystein proteinase inhibitor.
AAA97905.1 U51853 Glycine max
cysteine proteinase inhibitor.
CAA79954.1 Z21954 Vigna unguiculata
cysteine proteinase inhibitor.
AAB66355.1 U54702 Oryza sativa
thiol proteinase inhibitor; cysteine proteinase inhibitor. oryzacystatin. has potential for insect
resistance in rice and for cancer therapeutics.
AAB24010.1 S49967 Oryza
oryzacystatin. oryzacystatin. cysteine protease inhibitor; This sequence comes from Fig. 1.
CAA60610.1 X87126 Zea mays
cysteine proteinase inhibitor. zmc-II.
BAA09666.1 D63342 Zea mays
cysteine proteinase inhibitor. gCC.
AAA32672.1 L16624 Ambrosia artemisiifolia
cystatin proteinase inhibitor.
BAA07327.1 D38130 Zea mays
inhibition against cysteine proteinases. cystatin II.
AAA97907.1 U51855 Glycine max
cysteine proteinase inhibitor.
BAB18766.1 AB038392 Triticum aestivum
cysteine proteinase inhibitor. WC61. cystatin.
BAB18767.1 AB038393 Triticum aestivum
cysteine proteinase inhibitor. WC92. cystatin.
CAA11899.1 AJ224331 Castanea sativa
cysteine proteinase inhibitor, cystatin.
AAB71505.1 U82220 Pyrus communis
cysteine protease inhibitor.
AAA79239.1 L48182 Brassica rapa
cysteine proteinase inhibitor. N-terminal deletion clone; putative.
CAA60634.1 X87168 Sorghum bicolor
cysteine proteinase inhibitor. CPI1.
AAA68150.1 L42819 Brassica rapa
cysteine protenase inhibitor. N-terminal deletion clone; putative.
BAB18765.1 AB038391 Triticum aestivum
cysteine proteinase inhibitor. gWC2. cystatin.
BAB18768.1 AB038394 Triticum aestivum
cysteine proteinase inhibitor. WC83. cystatin.

AAC37479.1 L41355 Brassica rapa
cysteine proteinase inhibitor.
BAA28867.1 AB014760 Cucumis sativus
root-specific cystein protease inhibitor. cystein proteinase inhibitor.
AAD33907.1 AF143677 Artemisia vulgaris
cysteine proteinase inhibitor. CPI. pollen cystatin.
BAA89582.1 AP001073 Oryza sativa
ESTs AU067919(C10906), AU067918(C10906) correspond to a region of the predicted gene.
Similar to cysteine proteinase inhibitor (D31700).
CAA72790.1 Y12068 Hordeum vulgare
cysteine proteinase inhibitor. CPI.
AAA96316.1 U51119 Brassica rapa
cysteine proteinase inhibitor. BCPI-2.
AAK15090.1 AF240007 Sesamum indicum
cystatin. cysteine proteinase inhibitor.
AAF23127.1 AF198389 Lycopersicon esculentum
cysteine proteinase inhibitor. cystatin. STC. expression induced by arachidonic acid and
gamma linolenic acid.
BAA19610.1 D64115 Glycine max
cysteine proteinase inhibitor. cystatin.
BAA19608.1 D31700 Glycine max
cysteine proteinase inhibitor. cystatin.
CAA89697.1 Z49697 Ricinus communis
cysteine proteinase inhibitor.
AAF72202.1 AF265551 Manihot esculenta
cysteine protease inhibitor.
AAA97906.1 U51854 Glycine max
cysteine proteinase inhibitor.
CAA50437.1 X71124 Carica papaya
cysteine proteinase inhibitor (cystatin).
AAF23126.1 AF198388 Lycopersicon esculentum
cysteine proteinase inhibitor. cystatin, LTC. expression induced by arachidonic acid and
gamma linolenic acid.
AAD13812.1 AF117334 Ipomoea batatas
cysteine proteinase inhibitor. cystatin.
AAF64480.1 AF241536 Ipomoea batatas
cysteine protease inhibitor. CYSPI.
AAK30004.1 AY028994 Dianthus caryophyllus
cysteine proteinase inhibitor. DC-CPIn.
BAB18769.1 AB038395 Triticum aestivum
cysteine proteinase inhibitor. WC81. cystatin.
AAC32853.1 AF083253 Lycopersicon esculentum
cysteine protease inhibitor.

SEQ ID NO: 938
CAA06486.1 AJ005340 Linum usitatissimum
IAA amidohydrolase. homolog.
SEQ ID NO: 940
BAB17350.1 AP002747 Oryza sativa
putative nodulin. P0698G03.34. contains ESTs
D39891(S1543),D41717(S4395),AU033037(S1543).
BAA85440.1 AP000616 Oryza sativa
ESTs AU055729(S20023), AU055730(S20023) correspond to a region of the predicted gene.;
similar to Medicago nodulin N21-like protein (AC004218).
CAB53493.1 AJ245900 Oryza sativa
CAA303720.1 protein. q3037.20. Similar to Medicago nodulin N21 (MtN21).
SEQ ID NO: 941
BAA21921.1 AB006599 Petunia x hybrida
ZPT2-12. C2H2 zinc finger protein, 2 finger.
BAA21922.1 AB006600 Petunia x hybrida
ZPT2-13. C2H2 zinc finger protein, 2finger.
BAA19110.1 AB000451 Petunia x hybrida
PEThy; ZPT2-5. Cys(2) His(2) zinc finger protein, 2 fingers.
BAA21923.1 AB006601 Petunia x hybrida
ZPT2-14. C2H2 zinc finger protein, 2 finger.
BAA21925.1 AB006603 Petunia x hybrida
ZPT2-8. C2H2 zinc finger protein, 2 finger.
BAA21924.1 AB006602 Petunia x hybrida
ZPT2-7. C2H2 zinc finger protein, 2finger.
BAA21920.1 AB006598 Petunia x hybrida
ZPT2-11. C2H2 zinc finger protein, 2finger.
CAA60828.1 X87374 Pisum sativum
putative zinc finger protein.
BAA19111.1 AB000452 Petunia x hybrida
PEThy; ZPT2-6. Cys(2) His(2) zinc finger protein, 2 fingers.
BAA21926.1 AB006604 Petunia x hybrida
ZPT2-9. C2H2 zinc finger protein, 2 finger.
BAA21927.1 AB006605 Petunia x hybrida
ZPT3-3. C2H2 zinc finger protein, 3 finger.
BAA96071.1 AB035133 Petunia x hybrida
C2H2 zinc-finger protein ZPT3-3. ZPT3-3.
BAA21919.1 AB006597 Petunia x hybrida
ZPT2-10. C2H2 zinc finger protein, 2 finger.
BAA96070.1 AB035132 Petunia x hybrida
C2H2 zinc-finger protein ZPT2-10. PEThy;ZPT2-10.
CAB77055.1 Y18788 Medicago sativa
putative TFIIIA (or kruppel)-like zinc finger protein.

CAB55626.1 Y14810 Lycopersicon esculentum
beta-carotene hydroxylase. CrtR-b2.
CAA70427.1 Y09225 Capsicum annuum
beta-carotene hydrolase.
CAC06712.1 AJ278882 Narcissus pseudonarcissus
synthesis of zeaxanthin. beta-carotene hydroxylase.
AAD54243.1 AF162276 Haematococcus pluvialis
carotenoid hydroxylase.
SEQ ID NO: 946
AAC18914.1 U94748 Petunia x hybrida
AN11. An11. No functional information available. Protein is involved in transcriptional
regulation of anthocyanin biosynthesis in petunia. Protein contains five WD 40 repeats; WD
40 repeat protein.
SEQ ID NO: 948
AAG52887.1 AF333386 Nicotiana tabacum
beta-expansin-like protein. PPAL. pollen allergen-like protein.
AAF72986.1 AF261273 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB5.
AAF72990.1 AF261277 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB9. putative group-1 pollen allergen.
BAB20817.1 AB051899 Atriplex lentiformis
beta-expansin. Al-EXP1.
AAF72984.1 AF261271 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB3.
AAK15453.1 AC037426 Oryza sativa
beta-expansin EXPB3. OSJNBb0014I11.1.
AAF72991.1 AF261278 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB10. putative group-1 pollen
allergen.
AAK15442.1 AC037426 Oryza sativa
beta-expansin EXPB6. OSJNBb0014I11.3.
AAF72987.1 AF261274 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB6.
AAF72983.1 AF261270 Oryza sativa
putative cell wall loosening activity. beta-expansin, EXPB1. putative group-1 pollen allergen
Ory s1.
AAF72988.1 AF261275 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB7.
AAF72989.2 AF261276 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB8. AAF72985.1 AF261272 Oryza sativa
putative cell wall loosening activity. beta-expansin. EXPB4.

beta-expansin EXPB2. OSJNBb0014I11.2. AAB61710.1 U95968 Oryza sativa beta-expansin, EXPB2. cell wall loosening protein. AAB37749.1 U30460 Cucumis sativus expansin S2 precursor. Cs-EXP2. similar to pollen allergen Lol pI, Lolium perenne, Swiss- Prot Accession Number P14946; former gene name CuExS2; expansin-30 (Ex30) protein. AAD38296.1 AC007789 Oryza sativa putative expansin. OSJNBa0049B20.23. BAB18336.1 AP002865 Oryza sativa putative expansin. P0034C11.27. CAC19183.1 AJ291816 Cicer arietinum expansin. AAG39383.1 AF297522 Prunus avium expansin 2. Exp2. PrnavExp2. AAG01875.1 AF291659 Striga asiatica alpha-expansin 3. Exp3. AAG32920.1 AF184232 Lycopersicon esculentum expansin. Exp8. AAC96077.1 AF049350 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP1. cell wall protein. AAF35902.1 AF230333 Zinnia elegans expansin 3. BAA88200.1 AP000837 Oryza sativa EST AU078708(E60526) corresponds to a region of the predicted gene. Similar to expansin GhEX1. contains N-terminal signal peptide. AAD38297.1 AC007789 Oryza sativa putative expansin. OSJNBa0049B20.24. AAF32411.1 AF230278 Triphysaria versicolor alpha-expansin I. BAB18338.1 AP002865 Oryza sativa putative expansin. DSJNBa0049B20.24. AAG3920.1 AF184233 Lycopersicon esculentum expansin. Exp10. CAC19184.1 AF291817 Cicer arietinum expansin. Exp10. CAC19184.1 AF291817 Cicer arietinum expansin. involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.	
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expansin S2 precursor. Cs-EXP2. similar to pollen allergen Lol pI, Lolium perenne, Swiss-Prot Accession Number P14946; former gene name CuExS2; expansin-30 (Ex30) protein. AAD38296.1 AC007789 Oryza sativa putative expansin. OSNBa0049B20.23. BAB18336.1 AP002865 Oryza sativa putative expansin. P0034C11.27. CAC19183.1 AI291816 Cicer arietinum expansin. AAG13983.1 AF297522 Prunus avium expansin. 2. Exp2. PruavExp2. AAG01875.1 AF291659 Striga asiatica alpha-expansin 3. Exp3. AAG32920.1 AF184232 Lycopersicon esculentum expansin. Exp8. AAC96077.1 AF049350 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP1. cell wall protein. AAC96078.1 AF049351 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP2. cell wall protein. AAF35902.1 AF230333 Zinnia elegans expansin 3. BAA88200.1 AP000837 Oryza sativa EST AU078708(E60526) corresponds to a region of the predicted gene. Similar to expansin (U83246). AAC39512.1 AF043284 Gossypium hirsutum expansin. GhEX1. contains N-terminal signal peptide. AAD38297.1 AC007789 Oryza sativa putative expansin. OSINBa0049B20.24. AAF32411.1 AF230278 Triphysaria versicolor alpha-expansin 1. BAB18338.1 AP002865 Oryza sativa putative expansin. OSINBa0049B20.24. AAG32921.1 AF184233 Lycopersicon esculentum expansin. Exp10. CAC19184.1 AJ291817 Cicer arietinum expansin. Exp10. CAC19184.1 AJ291817 Cicer arietinum expansin. Exp10. CAC19184.1 AJ291817 Cicer arietinum expansin. Exp10.	beta-expansin, EXPB2. cell wall loosening protein.
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AAC96079.1 AF049352 Nicotiana tabacum involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.	CAC19184.1 AJ291817 Cicer arietinum
involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.	expansin.
	involved in acid-growth response. alpha-expansin precursor. Nt-EXP3. cell wall protein.
SEQ ID NO: 950	SEQ ID NO: 950

CAA52213.1 X74115 Picea abies

short-chain alcohol dehydrogenase.

AAC35342.1 AF072449 Ipomoea trifida

short-chain alcohol dehydrogenase. SSP, self-incompatibility-locus specific stigma protein.

AAC35340.1 AF072447 Ipomoea trifida

short-chain alcohol dehydrogenase. SSP. self-incompatibility-locus specific stigma protein.

CAA11153.1 AJ223177 Nicotiana tabacum

short chain alcohol dehydrogenase.

CAA11154.1 AJ223178 Nicotiana tabacum

short chain alcohol dehydrogenase. SCANT.

AAK29646.1 AF349916 Solanum tuberosum

putative short-chain type alcohol dehydrogenase. GAN; similar to tomato Leert10 and maize Ts2.

AAC37345.1 L20621 Zea mays

alcohol dehydrogenase. short chain.

AAC35341.1 AF072448 Ipomoea trifida

short-chain alcohol dehydrogenase. SSP. self-incompatibility-locus specific stigma protein.

AAC35343.1 AF072450 Ipomoea trifida

short-chain alcohol dehydrogenase. SSP. self-incompatibility-locus specific stigma protein.

AAB57737.1 U89270 Tripsacum dactyloides

short-chain alcohol dehydrogenase. gynomonoecious sex form 1. similar to Zea mays tasselseed 2: SwissProt Accession Number P50160.

AAF89645.1 AF169018 Glycine max

seed maturation protein PM34. PM34. similar to bacterial glucose and ribitol dehydrogenase.

AAF04253.1 AF097651 Pisum sativum

short-chain alcohol dehydrogenase SAD-C. sadC. contains the entire nucleotide binding motif of 3(alpha), 20(beta)-hydroxysteroid dehydrogenases, GXXXXXXGXXG(A)XGXXXA (Ghosh et al., 1991, Proc. Natl. Acad. Sci. USA 88, 10064-10068).

AAF04193.1 AF053638 Pisum sativum

short-chain alcohol dehydrogenase. sadA. contains the entire nucleotide binding motif of the 3(alfa),20(beta)-hydroxysteroid dehydrogenase: GXXXXXXGXXG(A)XGXXXA (Ghosh et al. (1991) Proc. Natl. Acad. Sci. USA 88, 10064-10068); similar to Lycopersicon esculentum product encoded by GenBank Accession Number U21801 and Streptomyces hydrogenans steroid alcohol dehydrogenase.

AAB57738.1 U89271 Tripsacum dactyloides

short-chain alcohol dehydrogenase. gynomonoecious sex form 1. similar to Zea mays tasselseed 2: SwissProt Accession Number P50160.

CAB91875.1 AJ277945 Lycopersicon esculentum

putative alcohol dehydrogenase. yfe37.

AAF04194.1 AF053639 Pisum sativum

short-chain alcohol dehydrogenase. sadB. contains the Prosite pattern no. PS00061 for short-chain alcohol dehydrogenases; contains a deletion in the nucleotide binding motif of the 3(alfa),20(beta)-hydroxysteroid dehydrogenase: GXXXXXXGXXG(A)XGXXXA (Ghosh et al. (1991) Proc. Natl. Acad. Sci. USA 88, 10064-10068).

AAB00109.1 U21801 Lycopersicon esculentum
alcohol dehydrogenase homolog. GAD3. mRNA is supressed in the presence of gibberellin;
similar to nonmetallo-short-chain alcohol dehydrogenases, PIR Accession Number A47542.
SEQ ID NO: 952
CAB63264.1 AJ251808 Lotus japonicus
calcium-binding protein. cbp1.
AAG43547.1 AF211529 Nicotiana tabacum
Avr9/Cf-9 rapidly elicited protein 31. ACRE31. similar to Solanum tuberosum CAST calcium
binding protein encoded by GenBank Accession Number L02830.
AAA34014.1 L01432 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-3. putative.
AAA34013.1 L01430 Glycine max
calcium-binding regulatory protein. calmodulin. SCaM-1. putative.
AAA92681.1 U13882 Pisum sativum
calcium-binding protein. calmodulin.
CAA78301.1 Z12839 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin.
AAA33397.1 L18912 Lilium longiflorum
calcium binding protein, signal transduction. calmodulin. putative.
AAA19571.1 U10150 Brassica napus
calcium binding. calmodulin. bcm1.
AAA85157.1 U20297 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85156.1 U20296 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA62351.1 U20295 Solanum tuberosum
calcium-binding protein. calmodulin.
AAA85155.1 U20294 Solanum tuberosum
calcium-binding protein. calmodulin.
AAC49587.1 U49105 Triticum aestivum
calmodulin TaCaM4-1. calcium-binding protein.
AAC49586.1 U49104 Triticum aestivum
calmodulin TaCaM3-3. calcium-binding protein.
AAC49585.1 U49103 Triticum aestivum
calmodulin TaCaM3-2. calcium-binding protein.
AAC49584.1 U48693 Triticum aestivum
calmodulin TaCaM3-1. calcium-binding protein.
AAC49580.1 U48689 Triticum aestivum
calmodulin TaCaM1-3, calcium-binding protein.
AAC49579.1 U48688 Triticum aestivum
calmodulin TaCaM1-2. calcium binding protein.
AAC49578.1 U48242 Triticum aestivum
calmodulin TaCaM1-1. calcium-binding.

CAA78287.1 Z12827	Oryza sativa
calcium binding protein, s	ignal transduction. calmodulin.
AAA03580.1 L01431	Glycine max
calcium-binding regulator	y protein. calmodulin. SCaM-2. putative.
AAA33901.1 L18913	Oryza sativa
calcium binding protein, s	ignal transduction. calmodulin. putative.
AAA34015.1 L01433	Glycine max
calcium-binding regulator	y protein. calmodulin. SCaM-4. putative.

Table 24 Plant Open Reading Frames (ORFs) orthologous to specific Chenopodium ORFs

SEQ ID NO:1956
CAB51903.1 AJ242807Brassica napus
endo-1,4-beta-D-glucanase. Cel16. cellulase.
BAA94257.1 AB040769Hordeum vulgare
endo-1,4-beta-glucanase Cel1. Cel1.
AAC49704.1 U78526 Lycopersicon esculentum
endo-1,4-beta-glucanase. Cel3.
SEQ ID NO:1957
BAB21273.1 AP002844Oryza sativa
putative ABC transporter protein. P0410E03.4.
BAB21275.1 AP002844Oryza sativa
putative ABC transporter protein. P0410E03.6.
BAB21276.1 AP002844Oryza sativa
putative ABC transporter protein. P0410E03.7. contains EST
D22472(C1173).
CAA94437.1 Z70524 Spirodela polyrrhiza
multidrug resistance protein. PDR5-like ABC transporter.
BAB21279.1 AP002844Oryza sativa
putative ABC transporter protein. P0410E03.10. contains ESTs
AU065360(R3463),AU101680(R3463).
CAA03960.1 AJ000234Hordeum vulgare
partial sequence, homology to PDR5-like ABC transporter.
SEQ ID NO:1960
AAD51778.1 AF116858Phaseolus vulgaris
utilizes UDPX as the sugar donor and catalyzes the formation
of O-xylosylzeatin from zeatin. zeatin O-xylosyltransferase. ZOX1.
AAD04166.1 AF101972Phaseolus lunatus
catalyzes formation of O-glucosylzeatin from zeatin and
UDPG; catalyzes formation of O-xylosylzeatin from zeatin and UDPX. zeatin
O-glucosyltransferase. ZOG1. cytokinin O-glucosyltransferase.
BAA36410.1 AB012114Vigna mungo
UDP-glycose:flavonoid glycosyltransferase. UFGlyT.
BAB17061.1 AP002523Oryza sativa
putative glucosyl transferase. P0013F10.7. contains EST
C73149(E2992).

BAA36412.1 AB012116Vigna mungo UDP-glycose:flavonoid glycosyltransferase. UFGlyT. AAK28303.1 AF346431Nicotiana tabacum phenylpropanoid:glucosyltransferase 1. togt1. glucosyltransferase. BAB17059.1 AP002523Oryza sativa putative glucosyl transferase. P0013F10.5. AAF17551.1 AF198453Glycine max UDP-glycose:flavonoid glycosyltransferase. UFGlyT. AAB36653.1 U32644 Nicotiana tabacum immediate-early salicylate-induced glucosyltransferase. IS5a. CAB88666.1 AJ400861Cicer arietinum flavonoid glycosyltransferase, putative UDP-glycose. AAB36652.1 U32643 Nicotiana tabacum immediate-early salicylate-induced glucosyltransferase. IS10a. CAA54612.1 X77462 Manihot esculenta UTP-glucose glucosyltransferase. CGT5. BAB17060.1 AP002523Oryza sativa putative glucosyl transferase. P0013F10.6. AAK28304.1 AF346432Nicotiana tabacum phenylpropanoid:glucosyltransferase 2. togt2. glucosyltransferase. CAA59450.1 X85138 Lycopersicon esculentum twil. homologous to glucosyltransferases. BAA83484.1 AB031274Scutellaria baicalensis UDP-glucose: flavonoid 7-O-glucosyltransferase. ufgt. CAA54611.1 X77461 Manihot esculenta UTP-glucose glucosyltransferase. CGT2. BAA36411.1 AB012115Vigna mungo UDP-glycose:flavonoid glycosyltransferase. UFGlyT. CAC35167.1 AJ310148Rauvolfia serpentina arbutin synthase. as. BAB17182.1 AP002843Oryza sativa putative UTP-glucose glucosyltransferase. P0407B12.19.

CAB56231.1 Y18871 Dorotheanthus bellidiformis
betanidin-5-O-glucosyltransferase.
BAB17176.1 AP002843Oryza sativa
putative UTP-glucose glucosyltransferase. P0407B12.13.
AAK16172.1 AC079887Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.14.
CAA54613.1 X77463 Manihot esculenta
UTP-glucose glucosyltransferase. CGT6.
AAF61647.1 AF190634Nicotiana tabacum
UDP-glucose:salicylic acid glucosyltransferase. SA-GTase.
BAA93039.1 AB033758Citrus unshiu
limonoid UDP-glucosyltransferase. LGTase.
CAA54610.1 X77460 Manihot esculenta
UTP-glucose glucosyltransferase. CGT4.
AAA59054.1 L34847 Zea mays
conjugation of the growth hormone indole-3-acetic acid
(IAA). IAA-glu synthetase. iaglu.
BAA36423.1 AB013598Verbena x hybrida
UDP-glucose:anthocyanin 5-O-glucosyltransferase. HGT8.
AAF17077.1 AF199453Sorghum bicolor
UDP-glucose glucosyltransferase.
UDP-glucose:p-hydroxymandelonitrile-o- glucosyltransferase.
CAA54558.1 X77369 Solanum melongena
glycosyl transferase. GT.
AAK16175.1 AC079887Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.15.
CAA81057.1 Z25802 Petunia x hybrida
UDP rhamnose: anthocyanidin-3-glucoside
rhamnosyltransferase.
CAA50377.1 X71060 Petunia x hybrida
anthocyanin: rhamnosyltransferase. rt.
CAA50376.1 X71059 Petunia x hybrida
anthocyanin 3 glucoside: rhamnosyltransferase. rt.
AAK16181.1 AC079887Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.16.
AAK16178.1 AC079887Oryza sativa
putative glucosyltransferase. OSJNBa0040E01.5.

AAD21086.1 AF127218Forsythia x intermedia adds glucose residue to position 3 of flavonoid compounds. flavonoid 3-O-glucosyltransferase. UFGT. BAA89008.1 AB027454Petunia x hybrida anthocyanidin 3-O-glucosyltransferase. PGT8. **SEQ ID NO:1962** CAA65580.1 X96784 Nicotiana tabacum cytochrome P450. hsr515. CAA64635.1 X95342 Nicotiana tabacum cytochrome P450. hsr515. hypersensitivity-related gene. AAG44132.1 AF218296Pisum sativum cytochrome P450. P450 isolog. AAG49299.1 AF313489Callistephus chinensis flavonoid 3',5'-hydroxylase. BAA03438.1 D14588 Petunia x hybrida flavonoid-3',5'-hydroxylase. Hfl. AAC32274.1 AF081575Petunia x hybrida flavonoid 3',5'-hydroxylase. Hf1. P450 enzyme. CAA50442.1 X71130 Petunia x hybrida P450 hydroxylase. PET 1. CAA80266.1 Z22545 Petunia x hybrida flavonoid 3',5'-hydroxylase. AAG49315.1 AF315465Pelargonium x hortorum flavonoid 3'-hydroxylase. AAG49298.1 AF313488Callistephus chinensis putative flavonoid 3'-hydroxylase. AAB17562.1 U72654 Eustoma grandiflorum flavonoid 3'5'-hydroxylase. F3'5'H. cytochrome P450; CYP75. BAB20076.1 AB012925Torenia hybrida flavonoid 3',5'-hydroxylase. F3'5'H. AAG14961.1 AF214007Brassica napus cytochrome p450-dependent monooxygenase. BNF5H1. CAC26920.1 AJ295586Arabidopsis lyrata subsp. petraea ferulate-5-hydroxylase. fahl. AAG14962.1 AF214008Brassica napus cytochrome p450-dependent monooxygenase. BNF5H2.

References

Aarts et al., Proc Natl Acad Sci 95:10306 (1998).

Alonso et al., Science, 284:2148 (1999)

Altschul et al., J. Mol. Biol. 215:403 (1990).

5 Altschul et al., Nucleic Acids Res. 25:3389 (1997).

An et al., EMBO J. 4:277 (1985).

Aoyama et al., N-H Plant Journal, 11:605 (1997).

Bachem et al., Plant J., 9:745 (1996).

Bailey and Elkan In: Proceedings of the second international Conference on

Intelligent Systems for Molecular Biology (Altman, R., ed), pp 28-36, AAAI press (1994).

Ballas et al., Nucleic Acids Res. 17:7891 (1989).

Balzi et al., J. Biol. Chem., 269:2206 (1994).

Bansal et al., Proc. Natl. Acad. Sci. USA, 89:3654 (1992).

15 Batzer et al., Nucleic Acid Res., 19:5081 (1991).

Beachy and Murakishi, Phytopathology, 61:877 (1971).

Beals et al., Plant Cell, 9:1527 (1997).

Belanger et al., Genetics, 129:863 (1991).

Bevan et al., Nature, 304:184 (1983).

20 Blochinger & Diggelmann, Mol Cell Biol, 4:2929.

Bourouis et al., EMBO J., 2:1099 (1983).

Boyes et al., Proc Natl Acad Sci USA, 95:15849 (1998).

Byrne et al. Plant Cell Tissue and Organ Culture, 8:3 (1987).

Campbell and Gowri, Plant Physiol., 92:1 (1990).

25 Canto and Palukaitis, Virology, 265:74 (1999).

Cao et al., Plant Cell, 6:1583 (1994).

Cao et al., Cell, 88:57 (1997).

Century et al., Science, 278:1963 (1997).

Chandler et al., Plant Cell, 1:1175 (1989).

30 Christou et al., Biotechnology, 9:957 (1991).

Christou et al., Plant Physiol., 87:671 (1988).

Conklin and Last, Plant Physiol., 109:203 (1995).

Cooper et al., <u>Virology</u>, <u>206</u>:307 (1995)

Cooper et al., <u>Virology</u>, <u>216</u>:208 (1996).

Cordero et al., Plant J., 6:141 (1994).

Corpet et al., Nucleic Acids Res. 16:10881 (1988).

Crameri et al., Nature Biotech., 15:436 (1997).

5 Crameri et al., Nature, 391:288 (1998).

Creelman et al., Annu Rev Plant Physiol Plant Mol Biol 48:355 (1997).

Crossway et al., BioTechniques, 4:320 (1986).

Czako et al., Mol. Gen. Genet. 23 5 (1), 33-40 (1992).

Czernic et al., Plant Mol. Biol., 31:255 (1996).

10 Datta et al., <u>Bio/Technology</u>, <u>8</u>, 736 (1990).

Dayhoff et al., Atlas of Protein Sequence and Structure, Natl. Biomed. Res.

Found., Washington, C.D. (1978).

De Blaere et al., Meth. Enzymol. 143:277 (1987).

de Framond, FEBS, 290:103 (1991).

Delaney et al., <u>Proc. Natl. Acad. Sci. USA</u> 92:6602 (1995).

Della-Cioppa et al., Plant Physiology, 84:965 (1987).

De Oliveira et al., Microbios., 76:213 (1993).

Dennis et al., Nucleic Acids Res., 12:3983 (1984).

Dong et al., Curr Opin Plant Biol 1:316 (1998).

20 Dunigan and Madlener, <u>Virology</u>, <u>207</u>:460 (1995).

Durrant et al., The Plant Cell, 12:963 (2000).

Dzelkalns et al., Plant Cell, 5:855 (1993).

Eisen et al., Trends in Plant Sci. 95:14863 (2000).

Ellis and Jones, Curr Opin Plant Bio 1:288 (1998).

25 Elroy-Stein et al., PNAS USA, 86:6126 (1989).

English, et al., Plant Cell 8:179 (1996).

Eulgem et al., Trends in Plant Sci. 5:199 (2000).

Falk et al., Proc Natl Acad Sci USA 96:3292 (1999).

Feys et al., Plant Cell 6:751 (1994).

30 Franken et al., EMBO J., 10:2605 (1991).

Fromm et al., Bio/Technology 8:833 (1990).

Gallie et al., Molecular Biology of RNA, 237 (1989).

Gallie et al., Nucl. Acids Res., 15:8693 (1987).

Gan et al., Science (1995), 270 (5244), 1986-8).

Gatz Current Opinion in Biotechnology, 7:168 (1996).

Gatz, C., Annu. Rev. Plant Physiol. Plant Mol. Biol., 48:89 (1997).

Gelfand, eds., PCR Strategies (Academic Press, New York (1995)).

Glazebrook, J., Curr. Opin. Plat Biology, 2:280 (1999).

Glazebrook et al., Genetics 143:973 (1996).

Glazebrook et al., Proc. Natl. Acad. Sci. USA 91:8955 (1994).

Gordon-Kamm et al., Plant Cell, 2, 603 (1990).

Graham et al., Biochem. Biophys. Res. Comm., 101:1164 (1981).

10 Graham et al., <u>J. Biol. Chem.</u>, 260:6555 (1985).

Graham et al., J. Biol. Chem., 260:6561 (1985).

Guerineau et al., Mol. Gen. Genet. 262:141 (1991).

Gulyas and Farkas, Phytopath. Z., 91:182 (1978)

Hammand-Kosack and Jones, Ann. Rev. Plant Physiol. Plant Mol. Biol., 48:575 \

15 1997).

Heinlein et al., Science, 270:1983 (1995).

Henikoff & Henikoff, Proc. Natl. Acad. Sci. USA, 89:10915 (1989).

Henikoff and Henikoff, Proc. Natl. Acad. Sci. USA, 89:10915 (1992).

Hiei et al., Plant J. 6:271 (1994).

20 Higgins et al., Gene 73:237 (1988).

Higgins et al., CABIOS 5:151 (1989).

Hinchee et al., Biotechnology, 6:915 (1988).

Hoekema, In: The Binary Plant Vector System. Offset-drukkerij Kanters B.V.

Horvath and Chua, Plant Mol. Biol., 31:1061 (1996).

25 Huang et al., <u>CABIOS</u> 8:155 (1992).

Hudspeth & Grula, Plant Molec. Biol., 12:579 (1989).

Huffman et al., J. Cell. Biochem., 17B: Abstract.

Hunt et al., Mol. Plant-Microbe Int. 9:261 (1997).

Ingelbrecht et al., Plant Cell, 1:671 (1989).

Innis et al., eds., <u>PCR Protocols: A Guide to Methods and Applications</u> (Academic Press, New York (1995).

Innis and Gelfand, eds., <u>PCR Methods Manual</u> (Academic Press, New York) (1999).

Jobling et al., Nature, 325:622 (1987).

John et al., Proc. Natl. Acad. Sci. USA 89(13):5769 (1992).

Jones et al., Adv Bot Res 24:89 (1997).

Joshi et al., Nucleic Acid Res. 15:9627 (1987).

5 Joshi, Nucl. Acid Res., 15, 6643 (197).

Karlin and Altschul, Proc. Natl. Acad Sci. USA 87:2264 (1990).

Karlin and Altschul, Proc. Natl. Acad. Sci. USA 90:5873 (1993).

Keller et al., Genes Dev., 3:1639 (1989).

Klein et al., Bio/Technology, 6:559 (1988).

10 Klein et al., Nature (London) 327:70 (1987).

Klein et al., Plant Physiol., 91:440 (1988).

Klein et al., Proc. Natl. Acad. Sci. USA, 85:4305 (1988).

Kohler et al., Plant Mol. Biol., 29:1293 (1995).

Knauf, et al., Genetic Analysis of Host Range Expression by Agrobacterium In:

Molecular Genetics of the Bacteria-Plant Interaction, Puhler, A. ed., Springer-Verlag, New York, 245 (1983).

Komari, Plant Cell Reports, 9:303 (1990).

Koziel et al., Biotechnology, 11:194 (1993).

Kridl et al., Seed Science Research, 1:209 (1991).

20 Kriz et al., Mol. Gen. Genet., 207:90 (1987).

Kunkel, Proc. Natl. Acad. Sci. USA, 82:488 (1985).

Kunkel et al., Methods in Enzymol., 154:367 (1987).

Lange et al., Plant Sci., 142:133 (1999).

Langridge et al., Cell, 34:1015 (1983).

25 Lashbrook et al., <u>Plant Cell</u>, <u>6</u>:1485 (1994).

Leister et al., <u>P.N.A.S.</u>, (USA), <u>95</u>:370 (1998).

Leister et al., Proc. Natl. Acad. Sci. USA, 95:370 (1998).

Liang et al., Science, 257:967 (1992).

Lindstrom et al., Der. Genet., 11:160 (1990).

30 Lommel et al., <u>Virology</u>, 81:382 (1991).

Ly et al., Science, 287:2486 (2000).

Macejak et al., Nature, 353:90 (1991).

Mansson et al., Gen. Genet., 200:356 (1985).

Martin and Paz-Ares, Trends in Genetics 13:67 (1997).

Martinez et al., <u>J. Mol. Biol.</u>, 208:551 (1989).

McBride et al., Proc. Natl. Acad. Sci. USA, 91:7301 (1994).

McCabe et al., Bio/Technology, 6:923 (1988).

5 McDowell et al., Plant J. 22:523 (2000).

McDowell et al., Plant Cell 10:1861 (1998).

McNellis et al., Plant J. 1998, 14:247-257.

Meinkoth and Wahl, Anal. Biochem., 138:267 (1984).

Messing & Vierra, Gene, 19:259 (1982).

10 Meyers et al., Plant J. 20:317 (1999).

Mogen et al., Plant Cell 2:1261 (1990).

Moore et al., J. Mol. Biol., 272:336 (1997).

Munroe et al., Gene 91:151 (1990).

Murray et al., Nucleic Acids Res., 17:477 (1989).

15 Myers and Miller, <u>CABIOS</u> 4:11 (1988).

Needleman and Wunsch, J. Mol. Biol. 48:443 (1970).

Odell et al., Nature, 313:810 (1985).

Odell et al., Nature, 313:810 (1985).

Ohtsuka et al., J. Biol. Chem., 260:2605 (1985).

Okamuro et al., Biochemistry of Plants, 15:1 (1989).

Otsuki et al., Virology, 50:45 (1972)

Paszkowski et al., EMBO J., 3:2717 (1984).

Pacciotti et al. Bio/Technology 3:241 (1985).

Padgett and Beachy, Plant Cell, 5:577 (1993).

25 Park et al., <u>J. Plant Biol.</u> 38(4):365 (1985).

Pearson et al., Meth. Mol. Biol. 24:307 (1994).

Pearson and Lipman, Proc. Natl. Acad. Sci. 85:2444 (1988).

Penninck et al., Plant Cell 8:2309 (1996).

Perlak et al., Proc. Natl. Acad. Sci. USA, 88:3324 (1991).

30 Pieterse et al., Plant Cell, 10:1571 (1998).

Pieterse et al., Plant Cell, 8:1225 (1996).

Proudfoot, Cell 64:671 (1991).

Quigley et al., J. Mol. Evol., 29:412 (1989).

Ralston et al., Genetics, 119:185 (1988).

Reina et al., Nucleic Acids Res., 18:6425 (1990).

Reina et al., Nucleic Acids Res., 18:7449 (1990).

Riggs et al., Proc. Natl. Acad. Sci. USA, 83:5602 (1986).

5 Rochester et al., (1986).

Rommens et al., Plant Cell, 7:1537 (1995).

Ronald, Curr Opin Plant Bio1 1:294 (1998).

Rossolini et al., Mol. Cell. Probes, 8:91 (1994).

Roth et al., Nature Biotechnology, 16:939 (1998).

10 Ruiz et al., Plant Cell 10:937 (1998).

Ryals et al., Plant Cell 8:1809 (1996).

Ryals et al., Plant Cell 9:425 (1997)

Sambrook et al., <u>Molecular Cloning: A Laboratory Manual</u> (2d ed., Cold Spring Harbor Laboratory Press, Plainview, New York) (1989).

Sanchez-Fernandez et al., Mol. Gen. Genet., 258:655 (1998).

Sanfacon et al., Genes Dev. 5:141 (1991).

Sanford et al., Particulate Science and Technology, 5:27 (1987).

Schernthaner et al., EMBO J., 7:1249 (1988).

Schindler et al., Plant Cell 4:1309 (1992).

20 Schmitz and Rao, <u>Virology</u>, <u>248</u>:323 (1996)

Schwob et al., Plant J., 4:423 (1993).

Shah et al., Mol. Plant-Microbe Interact. 10:69 (1997).

Shimamoto et al., Nature, 338:274 (1989).

Shirasu et al., Plant Cell 9:261 (1997).

25 Shulaev et al., <u>Plant Cell</u> 7:1691 (1995).

Simpson, Plant Mol. Biol., 19:699 (1985).

Skuzeski et al., Plant Molec. Biol., 15:65 (1990).

Slater et al., <u>Plant Mol. Biol.</u>, 5:137 (1985).

Smart and Fleming, J. Biol. Chem., 271:19351 (1996).

30 Smith et al., Adv. Appl. Math. 2:482 (1981).

Smith et al., Planta 168:94 (1986).

Song et al., Science, 270:1804 (1995).

Spencer et al., Theor Appl Genet, 79:625 (1990).

Staswick et al., Proc. Natl. Acad. Sci. USA 89:6837 (1992).

Staub et al., EMBO J., 12:601 (1993).

Staub et al., Plant Cell, 4:39 (1992).

Stemmer, Nature, 370:389 (1994).

5 Stemmer, Proc. Natl. Acad. Sci. USA, 91:10747 (1994).

Sukhapinda et al. Plant Mol. Biol. 8:209 (1987).

Sullivan et al., Mol. Gen. Genet., 215:431 (1989).

Svab et al., Proc. Natl. Acad. Sci. USA, 87:8526 (1990).

Svab et al., Proc. Natl. Acad. Sci. USA, 90:913 (1993).

10 Thomma et al., Plant Physiol., 121:1093 (1999).

Thomma et al., Proc. Natl. Acad. sci. U.S.A., 85:15107 (1998).

Tijssen, Laboratory Techniques in Biochemistry and Molecular Biology-

Hybridization with Nucleic Acid Probes, part I chapter 2 "Overview of principles of hybridization and the strategy of nucleic acid probe assays"

15 Elsevier, New York (1993).

Turner et al., Molecular Biotechnology, 3:225 (1995).

VanTunen et al., EMBO J., 7:1257 (1988).

Vasil et al., Biotechnology, 11:1553 (1993).

Verduin, J. Gen. Virol., 38:571 (1978).

20 Vernooij et al., Plant Cell 6:959 (1994).

25

Visedo et al., Physiologia Plantarum, 78:218 (1990).

Vodkin, Prog. Clin. Biol. Res., 138:87 (1983).

Vogel et al., EMBO J., 11:157 (1992).

Walker and Gaastra, eds., <u>Techniques in Molecular Biology</u>, MacMillan

Publishing Company, New York (1983).

Wandelt et al., Nucleic Acids Res., 17:2354 (1989).

Waterman, M.S. Introduction to Computational Biology: Maps, sequences and genomes. Chapman & Hall. London (1995).

Weeks et al., Plant Physiol., 102:1077 (1993).

30 Weissinger et al., <u>Annual Rev. Genet.</u>, 22:421 (1988).

Wenzler et al., Plant Mol. Biol., 13:347 (1989).

Weymann et al., Plant Cell 7:2013 (1995).

White et al., Nucl Acids Res, 18:1062 (1990).

Whitham et al., <u>P.N.A.S.</u>, (USA), <u>93</u>:8776 (1996).

Whitham et al., Cell, 78:1101 (1994).

Willitset al., Mol Plant-Microbe Interact 11:795 (1998).

Xie et al., Science 280:1091 (1998).

5 Yamamoto et al., <u>Nucleic Acids Res.</u>, 18:7449 (1990).

Yang et al., Plant Mol. Biol., 38:1201 (1998).

Yang & Klessig, Proc. Natl. Acad. Sci. USA 93:14972 (2000).

Yu et al., Proc. Natl. Acad. Sci. USA 95:7819 (1998).

Zhang et al., Proc. Natl. Acad. Sci. USA, 94:4504 (1997).

Zhou et al., Plant Cell 8:2235 (1996).

Zhou et al., Plant Cell 10:1021 (1998).

All publications, patents and patent applications are incorporated herein by reference. While in the foregoing specification this invention has been described in relation to certain preferred embodiments thereof, and many details have been set forth for purposes of illustration, it will be apparent to those skilled in the art that the invention is susceptible to additional embodiments and that certain of the details described herein may be varied considerably without departing from the basic principles of the invention.

WHAT IS CLAIMED IS:

1. A method to identify at least one gene involved in plant resistance or response to infection by at least one pathogen comprising:

- a) determining or detecting plant gene expression in an incompatible interaction; and
- b) identifying at least one gene whose expression is significantly altered in the incompatible interaction relative to expression of the at least one gene in an uninfected plant, in a mutant plant that does not express a gene associated with response to infection by a pathogen, or in a corresponding compatible interaction.

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- 2. A method to identify at least one gene involved in plant resistance or response to infection by at least one pathogen comprising:
 - a) determining or detecting plant gene expression in a compatible interaction; and
 - b) identifying at least one gene whose expression is significantly altered in the compatible interaction relative to expression of the at least one gene in an uninfected plant, in a mutant plant that does not express a gene associated with response to infection by a pathogen, or in a corresponding incompatible interaction.
- 3. The method of claim 1 or 2 wherein the compatible interaction is between a plant having a resistance gene and a pathogen lacking a corresponding avirulence gene, a plant lacking a resistance gene to a pathogen having a corresponding avirulence gene, or a plant lacking a resistance gene and a pathogen lacking a corresponding avirulence gene.
 - 4. The method of claim 1 or 2 wherein expression of the at least one gene is upregulated in response to infection.
 - 5. The method of claim 1 or 2 wherein expression of the at least one gene is downregulated in response to infection.
- 30 6. The method of claim 1 or 2 wherein the at least one gene encodes a polypeptide that is substantially similar to a polypeptide encoded by an open reading frame comprising one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737.

7. The method of claim 1 or 2 wherein the at least one gene comprises an open reading frame comprising one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737.

- 8. The method of claim 1 or 2 wherein the pathogen is a bacterium.
- 9. The method of claim 1 or 2 wherein the pathogen is a fungus.

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- 10. The method of claim 1 or 2 wherein the pathogen is a virus.
- 10 11. The method of claim 1 or 2 wherein gene expression is detected or determined using a gene chip, a cDNA array, cDNA-AFLP, or differential display PCR
 - 12. The method of any one of claims 1 to 6 or 8 to 11 wherein the plant is a dicot.
- 15. The method of any one of claims 1 to 6 or 8 to 11 wherein the plant is a monocot.
 - 14. The method of any one of claims 1 to 13 further comprising isolating the at least one gene or a portion thereof which includes the open reading frame or promoter for the gene.
- 20 15. A method to identify at least one gene, the expression of which is altered by pathogen infection in a wild-type plant relative to a plant having a mutation that decreases jasmonic acid or ethylene-dependent signaling, comprising:
 - a) contacting a plurality of isolated nucleic acid samples on a solid substrate each comprising isolated nucleic acid with a probe comprising plant nucleic acid corresponding to RNA from a wild-type plant infected with the pathogen, so as to form a complex, wherein each sample comprises a plurality of oligonucleotides corresponding to at least a portion of one plant gene; and
 - b) comparing complex formation in a) with complex formation between a second plurality of isolated nucleic acid samples on a solid substrate with a second probe comprising nucleic acid corresponding to RNA from the plant having the mutation and infected with the pathogen, so as to identify a gene, the expression of which is altered by pathogen infection in a wild-type plant relative to the mutant plant.

16. A method to identify at least one gene, the expression of which is altered by pathogen infection in a wild-type plant relative to a plant having a mutation in a gene that interferes with salicylic acid dependent signaling, comprising:

a) contacting a plurality of isolated nucleic acid samples on a solid substrate each comprising isolated nucleic acid with a probe comprising plant nucleic acid corresponding to RNA from a wild-type plant infected with the pathogen, so as to form a complex, wherein each sample comprises a plurality of oligonucleotides corresponding to at least a portion of one plant gene; and

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- b) comparing complex formation in a) with complex formation between a second plurality of isolated nucleic acid samples on a solid substrate with a second probe comprising nucleic acid corresponding to RNA from the plant having a mutation and infected with the pathogen, so as to identify a gene, the expression of which is altered by pathogen infection in a wild-type plant relative to the mutant plant.
- 17. A method to identify at least one gene, the expression of which is altered by pathogen infection in a wild-type plant relative to a plant having a mutation that results in enhanced susceptibility to bacterial infection, comprising:
 - a) contacting a plurality of isolated nucleic acid samples on a solid substrate each comprising isolated nucleic acid with a probe comprising plant nucleic acid corresponding to RNA from a wild-type plant infected with the pathogen, so as to form a complex, wherein each sample comprises a plurality of oligonucleotides corresponding to at least a portion of one plant gene; and
 - b) comparing complex formation in a) with complex formation between a second plurality of isolated nucleic acid samples on a solid substrate with a second probe comprising nucleic acid corresponding to RNA from the plant having a mutation and infected with the pathogen, so as to identify a gene, the expression of which is altered by pathogen infection in a wild-type plant relative to the mutant plant.
- 18. A method to identify at least one gene, the expression of which is altered by infection with at least one virus, comprising:
 - a) contacting a plurality of isolated nucleic acid samples on a solid substrate each
 comprising isolated nucleic acid with a probe comprising plant nucleic acid
 corresponding to RNA from a wild-type plant infected with a virus, so as to form a

complex, wherein each sample comprises a plurality of oligonucleotides corresponding to at least a portion of one plant gene; and

b) comparing complex formation in a) with complex formation between a second plurality of isolated nucleic acid samples on a solid substrate with a second probe comprising nucleic acid corresponding to RNA from an uninfected plant, so as to identify a gene, the expression of which is altered by virus infection.

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- 19. A method to identify at least one gene, the expression of which is altered by infection with at least one pathogen comprising:
- a) contacting a plurality of isolated nucleic acid samples on a solid substrate each comprising isolated nucleic acid with a probe comprising plant nucleic acid corresponding to RNA from an incompatible interaction so as to form a complex, wherein each sample comprises a plurality of oligonucleotides corresponding to at least a portion of one plant gene; and
- b) comparing complex formation in a) with complex formation between a second plurality of isolated nucleic acid samples on a solid substrate with a second probe comprising nucleic acid corresponding to RNA from a corresponding compatible interaction so as to identify a gene, the expression of which is altered by the pathogen.
- 20. The method of any one of claims 15 to 19 wherein the at least one gene is upregulated.
 - 21. The method of any one of claims 15 to 19 wherein the at least one gene is downregulated.
- 22. The method of any one of claims 15 to 19 wherein the gene which is identified encodes a polypeptide that is substantially similar to a polypeptide encoded by an open reading frame comprising any one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737.
 - 23. The method of any one of claims 15 to 19 wherein the probes comprise nucleic acid from a dicot.
 - 24. The method of any one of claims 15 to 19 wherein the probes comprise nucleic acid from a cereal plant.

25. The method of any one of claims 15 to 19 wherein the probes comprise nucleic acid from a monocot.

26. The method of any one of claims 15 to 19 further comprising identifying the promoter for the at least one gene.

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- 27. An isolated polynucleotide comprising a plant nucleotide sequence that alters transcription of an operatively linked nucleic acid segment in a plant cell after pathogen infection, which plant nucleotide sequence is from a gene encoding a polypeptide that is substantially similar to a polypeptide encoded by a gene comprising a promoter selected from the group consisting of SEQ ID NOs:2137-2661 or SEQ ID NOs:4738-6813.
- 28. An isolated polynucleotide comprising a plant nucleotide sequence that alters transcription of an operatively linked nucleic acid segment in a plant cell after pathogen infection, which plant nucleotide sequence hybridizes under high stringency conditions to the complement of any one of SEQ ID NOs:2137-2661 or SEQ ID NOs:4738-6813.
- 29. An isolated polynucleotide comprising a plant nucleotide sequence that alters transcription of an operatively linked nucleic acid segment in a plant after pathogen infection, which plant nucleotide sequence hybridizes under very high stringency conditions to the complement of any one of SEQ ID NOs:2137-2661 or SEQ ID NOs:4738-6813.
- 30. An isolated polynucleotide comprising a plant nucleotide sequence that directs transcription of an operatively linked nucleic acid segment in a plant cell, which plant nucleotide sequence is selected from the group consisting of SEQ ID NOs:2137-2661 and or SEQ ID NOs:4738-6813.
- 31. The polynucleotide of any one of claims 27 to 30 wherein the plant nucleotide sequence is 25 to 2000 nucleotides in length.
- 32. The polynucleotide of any one of claims 27 to 30 wherein the plant nucleotide sequence has at least 90% nucleotide sequence identity to one of SEQ ID NOs:2137-2661 or SEQ ID NOs:4738-6813.

33. The polynucleotide of any one of claims 27 to 30 wherein the plant nucleotide sequence has at least 98% nucleotide sequence identity to one of SEQ ID NOs:2137-2661 or SEQ ID NOs:4738-6813.

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- 34. The polynucleotide of any one of claims 27 to 29 and 31 to 33 wherein the plant nucleotide sequence is from a dicot.
- 35. The polynucleotide of any one of claims 26 to 29 and 31 to 33 wherein the plant nucleotide sequence is from a monocot.
 - 36. The polynucleotide of any one of claims 26 to 29 and 31 to 33 wherein the plant nucleotide sequence is a maize, soybean, barley, alfalfa, sunflower, canola, soybean, cotton, peanut, sorghum, tobacco, sugarbeet, rice or wheat sequence.

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- 37. The polynucleotide of any one of claims 27 to 36 which comprises a TATA box, a CAAT box, or both.
- 38. A composition comprising the polynucleotide of any one of claims 27 to 37.

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- 39. A recombinant vector comprising the polynucleotide of any one of claims 27 to 38.
- 40. The vector of claim 39 which is selected from the group consisting of a plasmid, phagemid, cosmid, virus, F-factor and phage.

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- 41. An expression cassette comprising the polynucleotide of any one of claims 27 to 37 operatively linked to an open reading frame.
- 42. The expression cassette of claim 41 operably linked to other suitable regulatory sequences.

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43. The expression cassette of claim 41 wherein the open reading frame is in an antisense orientation relative to the nucleotide sequence which alters transcription.

44. The expression cassette of claim 41 wherein the open reading frame is in a sense orientation relative to the nucleotide sequence which alters transcription.

45. A recombinant vector comprising the expression cassette of claim 41.

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- 46. The vector of claim 45 wherein the vector is selected from the group consisting of a plasmid, phagemid, cosmid, virus, F-factor or phage.
- 47. A host cell comprising the expression cassette of claim 41.

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- 48. The host cell of claim 47 wherein the cell is selected from the group consisting of a yeast, a bacterium, a cereal plant cell, and an *Arabidopsis* cell.
- 49. A plant cell containing the expression cassette of claim 41.

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- 50. The plant cell of claim 49 which is a monocot cell.
- 51. The plant cell of claim 49 which is a dicot cell.
- 20 52. A transformed plant, the genome of which is augmented with the expression cassette of claim 41.
 - 53. A transformed plant comprising transformed plant cells, which cells contain the expression cassette of claim 41.

- 54. The transformed plant of claim 52 or 53 which is a dicot.
- 55. The transformed plant of claim 52 or 53 which is a monocot.
- 56. The transformed plant of claim 52 or 53 which is selected from the group consisting of maize, soybean, barley, alfalfa, sunflower, canola, soybean, cotton, peanut, sorghum, tobacco, sugarbeet, rice, wheat and *Arabidopsis*.

57. A method for augmenting a plant genome, comprising:

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- a) contacting plant cells with the expression cassette of claim 41 so as to yield a transformed plant cell; and
- b) regenerating the transformed plant cell to provide a differentiated transformed plant, wherein the differentiated transformed plant expresses the open reading frame in the cells of the plant.
- 58. A method to alter the phenotype of a plant cell comprising: introducing the expression cassette of claim 41 into a plant cell and expressing that open reading frame in the cell so as to alter a characteristic of that cell relative to a plant cell that does not comprise the expression cassette.
- 59. The method of claim 57 or 58 wherein the plant cell is a dicot cell.
- 15 60. The method of claim 57 or 58 wherein the plant is a monocot cell.
 - 61. The method of claim 57 or 58 wherein the plant cell a cereal cell.
- 62. The method of claim 57 or 58 wherein the plant cell is selected from the group consisting of a cell of maize, soybean, barley, alfalfa, sunflower, canola, soybean, cotton, peanut, sorghum, tobacco, sugarbeet, rice, wheat and *Arabidopsis*.
 - 63. The method of claim 57 or 58 wherein the open reading frame is in an antisense orientation relative to the nucleotide sequence which alters transcription.
 - 64. The method of claim 57 or 58 wherein the expression inhibits transcription or translation of endogenous plant nucleic acid sequences corresponding to the open reading frame.
- 65. The method of claim 57 or 58 wherein the open reading frame is in a sense orientation relative to the nucleotide sequence which alters transcription.
 - 66. The method of claim 57 wherein the open reading frame is expressed in an amount that is greater than the amount in a plant which does not comprise the expression cassette.

67. The method of claim 57 or 58 wherein the open reading frame encodes a protein.

- 68. The method of claim 67 wherein the protein encodes a regulatory product.
- 69. The method of claim 67 wherein the expression of the open reading frame confers insect resistance, bacterial resistance, fungal resistance, viral resistance, or nematode resistance.
- 70. A transformed plant prepared by the method of claim 57.

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- 71. A product of the plant of claim 70 which comprises the expression cassette or the gene product encoded by the open reading frame.
- 72. The product of claim 71 which is selected from the group consisting of a seed, fruit, vegetable, transgenic plant, and a progeny plant.
 - 73. A computer-readable medium having stored thereon a data structure comprising:
 - a) a nucleic acid molecule that has at least 70% nucleic acid sequence identity to a
 nucleotide molecule selected from the group consisting of SEQ ID NOs:1-953, 21372661, 1954-1966, 2000-2129, 2662-4737, 4738-6813 or the complement thereof; and
 - b) a module receiving the nucleic acid molecule which compares the nucleic acid sequence of the molecule to at least one other nucleic acid sequence.
- 74. The computer readable medium of claim 73 wherein the medium is selected from the group consisting of magnetic tape, optical disk, CD-ROM, random access memory, volatile memory, non-volatile memory and bubble memory.
 - 75. A computer-readable medium having stored thereon computer executable instructions for performing a method comprising:
- a) receiving a nucleic acid molecule having at least 70% nucleic acid sequence identity to a nucleotide sequence selected from the group consisting of SEQ ID NOs:1-953, 2137-2661, 1954-1966, 2000-2129, 2662-4737, 4738-6813 or the complement thereof; and

b) comparing the nucleic acid sequence of the molecule to at least one other nucleic acid sequence.

76. The computer readable medium of claim 75 wherein the medium is selected from the group consisting of magnetic tape, optical disk, CD-ROM, random access memory, volatile memory, non-volatile memory and bubble memory.

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- 77. The computer readable medium of any one of claims 73 to 76 wherein the nucleotide sequence is not SEQ ID NOs. 1-208, 210-215, 217-261, 263-266, 268-316, 318-385, 387-424, 426-439, 441-799, or 801-953.
- 78. A method to confer resistance or tolerance to a plant to a pathogen, comprising:
 - a) contacting plant cells with an expression cassette comprising a polynucleotide encoding a polypeptide that is substantially similar to a polypeptide encoded by an open reading frame comprising any one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737 so as to yield transformed cells; and
 - b) regenerating the transformed plant cells to provide a differentiated transformed plant, wherein the differentiated transformed plant expresses the polynucleotide in the cells of the plant in an amount effective to confer resistance or tolerance to the plant to a pathogen relative to a corresponding plant which does not comprise the expression cassette.
- 79. The method of claim 78 wherein the polynucleotide hybridizes under moderate stringency conditions to the complement of any one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737.
- 80. The method of any one of claims 78 to 79 wherein the cells are monocot cells.
- 81. The method of any one of claims 78 to 79 wherein the cells are dicot cells.
- 82. The method of claim 78 wherein the open reading frame encodes a DNA binding protein, hormone response protein, membrane protein, metabolic protein, transposon, receptor/kinase, phosphatase, stress protein, cell wall protein, lipid transfer protein, heat

shock protein, protein processing protein, RNA processing protein, non-cell wall structural protein or a non-kinase signaling protein.

- 83. A transformed plant prepared by the method of any one of claims 78 to 82.
- 84. A seed of the plant of claim 83.

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- 85. A progeny plant of the plant of claim 83.
- 10 86. A method to identify a plant cell infected with a pathogen, comprising:
 - a) contacting isolated nucleic acid obtained from a plant cell suspected of being infected with a pathogen with at least one oligonucleotide under conditions effective to specifically amplify a nucleotide sequence corresponding to one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737 or a portion thereof, so as to yield an amplified product; and
 - b) detecting or determining the presence or amount of the amplified product, wherein the presence or amount of the amplified product is indicative of pathogen infection.
 - 87. A method to identify a plant cell infected with a pathogen, comprising:
- a) contacting a sample comprising polypeptides obtained from a plant cell suspected of being infected with a pathogen with an agent that specifically binds to a polypeptide that is substantially similar to a polypeptide encoded by an open reading frame comprising one of SEQ ID NOs:1-953, 1954-1966, 2000-2129 or 2662-4737 so as to form a complex, wherein the; and
- b) detecting or determining the presence or amount of the complex, wherein the presence or amount of the complex is indicative of pathogen infection.
 - 88. A method to identify a plant cell infected with a pathogen, comprising:
- a) contacting nucleic acid obtained from a plant cell suspected of being infected with a pathogen with a probe corresponding to a sequence selected from the group consisting of SEQ ID Nos. 1-953, 1954-1966, 2000-2129 or 2662-4737 or a portion thereof, under stringent hybridization conditions to form a duplex, and

b) detecting or determining the presence or amount of the duplex, wherein the presence of a duplex is indicative of infection.

- 89. A method for marker-assisted breeding to select for plants having altered resistance to a pathogen comprising:
 - a) contacting plant DNA or cDNA with a probe comprising a sequence selected from the group consisting of SEQ ID Nos. 1-953, 1954-1966, 2000-2129 or 2662-4737 or a portion thereof which hybridizes under moderate stringency conditions to a gene corresponding to one of of SEQ ID Nos. 1-953, 1954-1966, 2000-2129 or 2662-4737 so as to form a duplex; and
 - b) detecting or determining the presence or amount of the duplex, wherein the amount or presence of the duplex is indicative of the presence of a gene, the expression of which alters the resistance of the plant to a pathogen.

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International Application No PCT/IB 01/01105

		PCT/1B	01/01105
A. CLASSI IPC 7	FICATION OF SUBJECT MATTER C12N15/29 C12N15/82 C12Q1/ C07K14/415	68 A01H5/00 G	06F17/00
According to	o International Patent Classification (IPC) or to both national classif	ication and IPC	
	SEARCHED		
Minimum do IPC 7	ocumentation searched (classification system followed by classifica CO7K C12N	tion symbols)	
Documental	tion searched other than minimum documentation to the extent that	such documents are included in the field	ls searched
Electronic d	ata base consulted during the international search (name of data b	ase and, where practical, search terms u	sed)
EPO-In	ternal, WPI Data, PAJ, BIOSIS, MED	LINE, SEQUENCE SEARCH	
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the re	elevant passages	Relevant to claim No.
X	SCHENK P M ET AL: "Coordinated defense responses in Arabidopsis by microarray analysis" PROCEEDINGS OF THE NATIONAL ACADESCIENCES OF USA, NATIONAL ACADESCIENCE. WASHINGTON, US, vol. 97, no. 21, 10 October 2000 (2000-10-10), page 10-10 (2000-10-10), page 2000 (2000-10-10-10), page 2000 (2000-10-10-10), page 2000 (2000-10-10-10), page 2000 (2000-10-10-10-10), page 2000 (2000-10-10-10-10-10-10-10-10-10-10-10-10-	s revealed DEMY OF MY OF	1-5, 8-21, 23-26
Х	11655-11660, XP002153163 ISSN: 0027-8424 the whole document WO 97 49822 A (CIBA GEIGY AG ;E MURRAY (US); FRIEDRICH LESLIE B 31 December 1997 (1997-12-31) the whole document	LLIS DANIEL	1-5, 8-21, 23-26
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X Furt	her documents are listed in the continuation of box C.	X Patent family members are lis	ted in annex.
° Special ca	stegories of cited documents ; ant defining the general state of the art which is not lered to be of particular relevance	"T" later document published after the or priority date and not in conflict cited to understand the principle of	with the application but
"E" earlier document but published on or after the international filling date "L" document which may throw doubts on priority claim(s) or which is cited to extend the publication date of earlier.		invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	
"O" docum other	n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but	"Y" document of particular relevance; to cannot be considered to involve a document is combined with one o ments, such combination being of in the art.	in Inventive step when the ir more other such docu-
later t	han the priority date claimed	"&" document member of the same par	
	actual completion of the international search July 2002	Date of mailing of the International 2 5. OS. 2002	l search report
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk	Authorized officer	
	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Oderwald, H	

International Application No
PCT/IB 01/01105

		PC1/1B 01/01105
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 07603 A (TUZUN SADIK ;UNIV AUBURN (US); ABDULLAH MALIKAH (US); SINGH NAREND) 1 February 2001 (2001-02-01) the whole document	1-5, 8-21, 23-26
X	EP 1 033 405 A (CERES INC) 6 September 2000 (2000-09-06)	73-76, 78-86, 88,89
A	page 1 -page 26 see SEQ IN NO: 38097 page 325 -page 341; claims 1-34	6,7,22

International application No. PCT/IB 01/01105

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: B7 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: See FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of Invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple Inventions in this international application, as follows:
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international Search Report covers only those claims for which fees were paid, specifically claims Nos.: Claims 1-26, 73-89 partially.
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 87

Present claim 87 relates to a product/compound defined by reference to a desirable characteristic or property, namely an agent that bindss to a polypeptide encoded by an open reading frame.

The claims cover all products/compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products/compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product/compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-26, 73-89 partially

A method to identify at least one gene involved in plant resistance or response to infection by at least one pathogen wherein the gene encodes a polypeptide encoded by an open reading frame comprising SEQ ID NO: 1. A method to identify at least one gene, the expression of which is altered by pathogen infection, a computer-readable medium, a method to confer resistance or tolerance to a plant, a transformed plant, a seed, a method to identify a plant cell infected with a pathogen, a method for marker-assisted breeding comprising said nucleic acid.

Invention 2-3173: claims 1-26, 73-89 partially

same as invention 1 but comprising a gene in the order as given in claim 6 (invention 2 is limited to SEQ ID NO: 2 and invention 3173 is limited to SEQ ID NO: 4737).

Invention 3174: claims 26-77 partially

An isolated polynucleotide comprising a plant nucleotide sequence that alters transcription of an operatively linked nucleic acid comprising SEQ ID NO: 2137. A composition, a vector, an expression cassette, a host cell, a plant cell, a transformed plant, a method for augmenting a plant genome, a method to alter the phenotype of a plant cell, a computer-readable medium comprising said polynucleotide.

Invention 3174-5774: claims 26-77 partially

same as invention 3173 but comprising a promoter sequence in the order as given in claim 27 (invention 3174 comprises SEQ ID NO: 2138 and invention 5774 comprises SEQ ID NO: 6813).

information on patent family members

International Application No PCT/IB 01/01105

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9749822	A	31-12-1997	AU	719639 B2	11-05-2000
			ΑÜ	2026197 A	14-01-1998
			BR	9709925 A	10-08-1999
			CA	2258576 A1	31-12-1997
			CN	1228813 A	15-09-1999
			WO	9749822 A1	31-12-1997
			ËΡ	0923648 A1	23-06-1999
			Η̈́U	9901749 A2	28-09-1999
			JP	2000512502 T	26-09-1999
			PL	330599 A1	24-05-1999
			TR	9802660 T2	21-04-1999
			ÜS	6091004 A	18-07-2000
			AU	727179 B2	07-12-2000
			AU	5663198 A	03-07-1998
			BR	9714398 A	02-05-2000
			MO	9826082 A1	18-06-1998
			EP	0944728 A1	29-09-1999
			FR	2757875 A1	03-07-1998
			ΪΪ	MI972741 A1	15-06-1998
			JP	2001505774 T	08-05-2001
			NL	1007779 C2	22-07-1998
			NL	1007779 A1	17-06-1998
			ÜS	5986082 A	16-11-1999
			ÜS	5955484 A	21-09-1999
			ÜŠ	5780469 A	14-07-1998
			ÜS	6031153 A	29-02-2000
WO 0107603	Α	01-02-2001	ΑU	6227200 A	13-02-2001
			MO	0107603 A1	01-02-2001
EP 1033405	Α	06-09-2000	CA	2300692 A1	25-08-2000
			ĒΡ	1033405 A2	06-09-2000